

Figure 9. Hibbitts Map Polygons and Public DSL Occurrences.

4. SWCA HABITAT ASSESSMENT OF THE KERMIT ATLAS 1 SITE

4.1. Methods

4.1.1. Field Evaluation

Two SWCA biologists with experience and training in the identification of the DSL and its habitat (see Section 5 for qualifications) conducted a field evaluation of the Kermit Atlas 1 Site on January 4 and 5, 2018. SWCA biologists spent approximately 40 person-hours on the Kermit Atlas 1 Site during the field evaluation. The purpose of the field evaluation was to visually assess the condition of the Kermit Atlas 1 Site relative to the habitat needs of the DSL, visually assess the context of the Kermit Atlas 1 Site in the larger landscape relative to aspects of habitat connectivity, and to document observations (e.g., notes, photographs, measurements) of current on-site conditions to inform a site-specific delineation and characterization of potential habitat for the DSL.

SWCA organized its field effort by traversing, on foot, 11 transects of the Kermit Atlas 1 Site. The transect spacing allowed for representative sampling of the entire site, as well as specific areas of interest. SWCA collected field observations at 3 to 4 points along each transect. Appendix A contains representative photographs of site conditions at the time of the field evaluation.

SWCA did not evaluate adjacent properties in the field for the presence or absence of the DSL or DSL habitat. SWCA did review aerial imagery surrounding the site as previously mentioned to facilitate the assessment of the likelihood of DSL dispersal into the site.

SWCA biologists remained alert during the field evaluation to the potential for observing DSL or other sympatric lizards. However, given the time of year, the field evaluation did not constitute a dedicated or targeted effort to detect DSL individuals.

4.1.2. SWCA Site-Specific Habitat Characterization

At a site-specific level, SWCA uses four categories to generally describe potentially suitable or unsuitable DSL habitat. These categories are based on SWCA's understanding of the best available science that describe what areas are used by DSL and the relative importance of such areas to the species. SWCA characterizes potential habitat for the DSL with the following descriptors of relative habitat quality or suitability:

Preferred Habitat – Extensive areas of shinnery dunes with large (> 10 feet deep) steep blowouts, sparse vegetation inside the depression, surrounded by shinnery oak and some soil compaction (Figure 10) (Fitzgerald et al. 1997; Fitzgerald et al. 2005; Hill and Fitzgerald 2007; Ryberg et al. 2012; Ryberg et al. 2013).





Figure 10. Preferred Habitat with shinnery oak on dune ridges above deep and sparsely vegetated dune blowouts (A) and the back side of a chain of steep shinnery dunes (B)

Suitable Habitat- Shinnery dunes with large (> 10 feet deep) blowouts containing moderate to dense grassy vegetation. Dunes have steep slopes and slight soil compaction (Figure 11).





Figure 11. Suitable Habitat in a shinnery dune system showing the presence of shinnery oak and steep dune slopes, but with moderately dense herbaceous vegetation on dunes and in blowouts (A) and the back side of a chain of shinnery dunes with grasses (B)

Marginal Habitat – Shinnery dunes with medium to large (generally 2 to 10 feet deep) blowouts that are may range from sparse to extensive herbaceous vegetation but contain gradual slopes. Interconnected shinnery dunes occur in relatively small complexes and are interspersed with flat mesquite grassland. These areas are adjacent to *Suitable* or *Preferred Habitats* (Figure 12).





Figure 12. *Marginal Habitat* dune system with less shinnery oak, smaller blowouts, flatter slopes, and may range in the extent of grassy vegetation but also contains mesquite (A and B)

Unsuitable Habitat - These areas lack some or all of the key characteristics of DSL habitat: suitable dune morphology (chains or complexes of steep dunes with moderate to large blowouts), suitable vegetation cover (shinnery oak on dune ridges and between dunes), and suitable soil texture (e.g. coarse sand [grain size >0.25 mm] with slight soil compaction [Hibbitts et al. 2013; Hibbitts et al. 2017; Ryberg and Fitzgerald 2014; Ryberg et al. 2012]). Because the DSL is a habitat specialist, the absence of the features described above generally renders an area unsuitable for regular use by the DSL. DSL has not been found in areas broadly lacking shinnery dune habitat (Fitzgerald et al. 1997; Fitzgerald et al. 2011; Ryberg et al. 2013; TAMU 2016). Thus, dunes of any size that are open sand and lack shinnery oak are Unsuitable Habitat. Blowouts are also important features of the landscape for DSL for foraging, reproduction and conspecific interactions. Thus, landscapes lacking blowouts are Unsuitable Habitat. In summary, Unsuitable Habitat differs from Marginal Habitat due to absence of blowouts and/or shinnery oak, thus large dunes that have sparse vegetation comprised of grasses, or large dunes that have dense vegetation of grasses and other species, but lack shinnery oak, are still considered *Unsuitable Habitat* (Figure 13). Unvegetated dunes comprised of open sand are also not considered to be Unsuitable Habitat, since they lack the blowout structure created by the interaction of shinnery oak, sand, and wind and the absence of vegetation may pose complicate thermoregulation and predator avoidance (Sartorius et al. 2002).







Figure 13. Examples of *Unsuitable Habitat* for DSL: (a) grassy dunes lacking shinnery oak, (b) large open dunes lacking vegetation including shinnery oak, (c) flat scrub-shrub area lacking dunes and shinnery oak

4.2. Results and Discussion

SWCA used the information gathered from the desktop review and the field evaluation to delineate areas of *Preferred*, *Suitable*, *Marginal*, and *Unsuitable Habitat* for the DSL, as applicable to the Kermit Atlas 1 Site. SWCA's characterization of DSL habitat suitability follows the classifications described in Section 4.1.2. As described in more detail below, the Kermit Atlas 1 Site lacks one or more habitat features important to the DSL, and thus SWCA categorizes the entire site as *Unsuitable Habitat*. This *Unsuitable Habitat* occurred in the form of relatively unvegetated open dunes or moderately vegetated grassy dunes. Most importantly, the Kermit Atlas 1 Site lacks shinnery oak, and only contained sparse shrub cover of any type. Furthermore, the Kermit Atlas 1 Site is isolated by at least 0.5 mile from other areas that might provide potential habitat for the DSL and more than 2 miles from any publicly documented DSL locality. Therefore, the Kermit Atlas 1 Site is not expected to be used by the DSL for breeding, feeding, sheltering, or dispersal.

4.2.1. Recent Disturbance

Atlas Sand was constructing an operating plant within the Kermit Atlas 1 Site at the time of the field evaluation. This recent disturbance was not visible on readily available aerial imagery from TNRIS, but involved approximately 81 acres of the Kermit Atlas 1 Site (Figure 14). Disturbances within this area involved surface grading and construction activities that removed the vegetation and dune structure visible on aerial imagery.

The area of recent disturbance is *Unsuitable Habitat* for the DSL. However, on the basis of the aerial imagery, SWCA assumes that the pre-disturbance conditions of this area were similar to the present condition of adjacent undisturbed portions of the Kermit Atlas 1 Site. Therefore, SWCA classifies the area of active disturbance as either *Unsuitable Open Sand Dunes* or *Unsuitable Grassy Dunes* (see below) on the basis of these assumed pre-disturbance conditions.

4.2.2. Unsuitable Open Sand Dunes

The Kermit Atlas 1 Site contained approximately 289 acres of open sand dunes (Figure 14). These open sand dunes were large with depression depths typically exceeding 10 feet; however, some areas had shallower dunes that were between 5 and 10 feet deep. The prevailing winds influenced the dune slope angles such that south-facing slopes had relatively steep angles (greater than approximately 50°) with hard-angled ridges and very loose sand. Dune slopes in the remaining cardinal directions exhibited more gradual slopes that varied between approximately 15° to 45°. These more gradual slopes exhibited some soil compaction, as compared to the very loose south-facing slopes. The open sand dunes form long, almost continuous ridges that contain linear-shaped depressions, rather than a collection of bowl-shaped depressions typical of *Preferred* or *Suitable Habitat*. Ryberg et al. (2014) found a significant positive relationship between the complexity of the blowout shape and juvenile DSL survival. Thus, the long dunes with linear ridges and depressions suggest a less-than-optimal dune structure for the DSL.

Vegetation cover in the open sand dunes was generally very sparse to entirely lacking on the very steep, south-facing dune slopes, but increased somewhat on the more gradual dune slopes and dune ridges. Where present, vegetation cover in the open sand dunes did not exceed approximately 50%. The dominant flora consisted of *Sporobolus cryptandrus* (sand dropseed), *Andropogon hallii* (sand bluestem), *Schizachyrium scoparium* (little bluestem), and *Eragrostris intermedia* (plains lovegrass). Occasional woody plants, such as *Baccharis salicifolia* (seepwillow) and *Chilopsis linearis* (desert willow) occurred within the open sand dunes, but did not dominate the vegetation community. Hydrophytic vegetation, such as *Cyperus lupulinus* (Great Plains flatsedge), sometimes occurred at the bottom of depressions (see photos 3 and 4, Appendix A). No shinnery oak was observed within the open sand dunes.

In summary, the open sand dunes exhibited large, abutting dunes with steep slopes, deep (albeit, linear) blowouts, and areas with moderate soil compaction. However, vegetation was generally lacking or sparse across most of the open sand dunes, and dominated by grasses. Woody plants occurred only occasionally in the open sand dunes, but shinnery oak was entirely absent. While the open sand dunes contain some of the structural elements of DSL habitat, these areas lacked shinnery oak vegetation and only had occasional presence of other woody plant species. Therefore, the open sand dunes generally lack the vegetation cover needed by DSL for thermoregulation and predator avoidance, and that supports its prey communities. SWCA classifies the open sand dunes as *Unsuitable Habitat* for the DSL for breeding, feeding, sheltering, or dispersal.

4.2.3. Unsuitable Grassy Dunes

A portion of the Kermit Atlas 1 Site (approximately 110 acres) exhibited grassy dunes (Figure 14). The structure of the grassy dunes showed more variation than the open sand dunes. In addition to dune structure described for the open sand dunes, the grassy dunes also contained a greater proportion of moderately-sized dunes (between 5 and 10 feet deep) and relatively flat "backdune" communities (see photos 5 and 6, Appendix A). The blowout depressions in the grassy dunes are generally more bowl-shaped, possibly associated with the more irregular dune ridge shapes and presence of the backdune vegetation communities.

Vegetation in the grassy dunes was denser than in the open sand dunes, generally ranging between approximately 25% and 75% cover. Vegetation cover was greater on dune ridges and on the relatively flat backdune areas. Plant species composition on the grassy dunes was generally similar to that of the open sand dunes. However, *Senecio riddellii* (Riddell's ragwort) is a dominant species in the backdune community, *Andropogon glomeratus* (bushy bluestem) was observed within depressions, and *Prosopis glandulosa* (honey mesquite) occurs along the southern edge of the Kermit Atlas 1 Site grassy dunes. The grassy dunes lack shinnery oak.

The grassy dunes contain large dunes, occasional bowl-shaped blowouts, and areas with slight soil compaction—features that, in some instances, are associated with the presence of DSL. No shinnery oak occurs within the grassy dunes. No literature to date has reported DSL collections from vegetation communities that lack shinnery oak, and detections of DSL decline where grasses supersede the dominance of shinnery oak (Fitzgerald et al. 2011). Therefore, the grassy dunes lack a key component of potentially suitable DSL habitat and SWCA classifies the grassy dunes on the Kermit Atlas 1 Site as *Unsuitable Habitat* for the DSL.

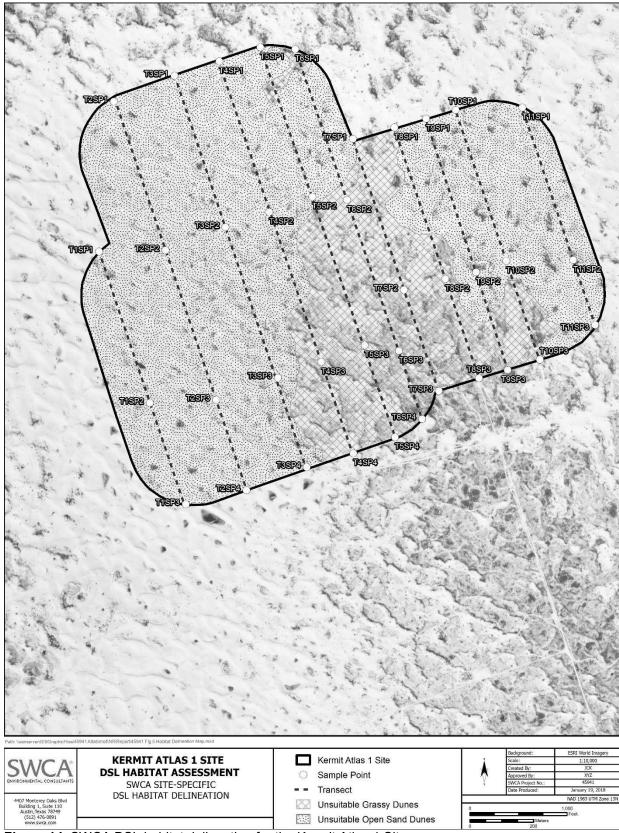


Figure 14. SWCA DSL habitat delineation for the Kermit Atlas 1 Site.

4.2.4. Likelihood of DSL Occupancy

SWCA delineated two forms of Unsuitable Habitat for the DSL on the Atlas 1 Site: open sand dunes and grassy dunes. These two landforms contain some structural habitat features that are associated with the presence of DSL, including large dunes with interconnected, steep blowouts. However, the Kermit Atlas 1 Site lacks a key vegetative component of DSL habitat: shinnery oak vegetation. The body of best available science does not document DSL occurrences in area that lack shinnery oak or that are not adjacent to shinnery oak communities (Fitzgerald et al. 2011; TAMU 2016b). DSL

The Kermit Atlas 1 Site neither contains shinnery oak communities nor is adjacent to shinnery oak communities. Instead, aerial imagery suggests that the nearest shinnery oak community is at least 0.5 mile away from the Kermit Atlas 1 Site. The nearest publicly recorded DSL occurrences are more than 2 miles away from the Kermit Atlas 1 Site and separated from the Kermit Atlas 1 Site by paved highways. Aerial imagery shows that other unpaved roads also occur between the publicly known DSL occurrences and the Kermit Atlas 1 Site. Roads form barriers to DSL dispersal that inhibit the movement of DSL across otherwise suitable habitats.

Consequently, despite the classification of the Hibbitts Map polygon containing the Kermit Atlas 1 Site as having a "very high likelihood of occupancy" by the DSL, actual site conditions suggest that the DSL is not expected to occur on the Kermit Atlas 1 Site due to the lack of even marginally suitable habitat on or adjacent to the site and the presence of multiple roads (paved and unpaved) in the areas between the Kermit Atlas 1 Site and previously documented DSL occurrences.

SWCA did not detect any DSL when performing the field evaluation for this habitat assessment. Although, we acknowledge that the field evaluation occurred during a time of year when DSL are not known to be highly detectable on the landscape.

5. QUALIFICATIONS OF THE PREPARERS

Amanda Aurora—Ms. Aurora is a Certified Wildlife Biologist through The Wildlife Society with a Master of Science degree in Biology. At SWCA, Ms. Aurora is a Regulatory Specialist and Regional Scientist providing strategic permitting and compliance services related to federal, state, and local environmental regulations. She works closely with clients and regulators to identify, evaluate, and document biologically sound, practical, and legally compliant permitting and compliance strategies. Ms. Aurora has focused her practice on resolving complex Endangered Species Act (ESA) challenges and is skilled with regional and multi-species Habitat Conservation Plans, Candidate Conservation Agreements, Biological Assessments, and Conservation Banks. Her experience with the ESA includes consultations and permitting under both Section 7 and Section 10 that have involved negotiating compliance solutions for critically imperiled species facing potential determinations of jeopardy or adverse modification of designated critical habitats. Ms. Aurora specializes in crafting compliance strategies that consider how other federal wildlife laws, such as the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, interact with the ESA.

Dr. Nicole Smolensky—Dr. Smolensky is a conservation biologist with ten years of experience conducting scientific research at national and international levels, specializing on threatened and endangered reptiles. She earned her master's and doctoral degrees from Texas A&M University during which she designed, funded, implemented, and managed projects involving the statuses and distributions of the DSL and the vulnerable African Dwarf Crocodile (*Osteolaemus tetraspis*). She worked extensively as a field biologist surveying populations of plants and animals. She has authored 13 technical and peerreviewed publications, and presented at 23 scientific meetings. Dr. Smolensky's Master of Science thesis studied the DSL in Texas. She published research on the DSL (*Population Variation in Dune-dwelling*)

Lizards in Response to Patch Size, Patch Quality, and Oil and Gas Development) in The Southwestern Naturalist in 2011.

Shelby Frizzell—Shelby Frizzell holds a Bachelor of Science degree in Wildlife and Fisheries Sciences with an emphasis in Wildlife Ecology from Texas A&M University. She has four years of experience studying Texas reptiles with the Natural Resource Institute at Texas A&M University, three years specifically working with the DSL. She has participated in studies involving habitat analysis, presence/absence surveys, pitfall trapping, and mark/recapture studies.

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APPENDIX A

Photographic Log (January 4 and 5, 2018)



Photo 1. Steep ridges can be seen spanning across the area. Photo facing NW. Photo point T1SP1. *Unsuitable Habitat*.

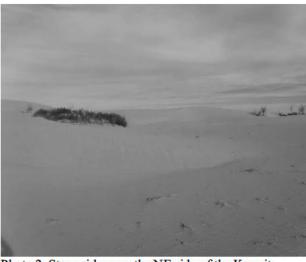


Photo 2. Steep ridges on the NE side of the Kermit Atlas 1 Site. Photo facing N. Photo point T11SP1. *Unsuitable Habitat*.



Photo 3. Hydrophytic vegetation in low lying area. Photo facing E. Photo point T9SP3. *Unsuitable Habitat*.



Photo 4. Hydrophytic vegetation in low lying area. ATV tracks present. Photo facing E. Photo point T3SP4. *Unsuitable Habitat*.



Photo 5. Representation of "backdune" community. Photo facing W. Photo point T5SP4. *Unsuitable Habitat*.



Photo 6. Representation of "backdune" community. Photo facing S. Photo point T5SP4. *Unsuitable Habitat*.



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SWCA-Protocol for Performing Presence/Absence Surveys for the DSL

SWCA-Protocol for Performing Site-specific Habitat Assessments for the DSL

SWCA-DSL Habitat Assessment for the Kermit Atlas 1 Site

Westward Plan of Operations



Protocol for Performing Presence/Absence Surveys for the Dunes Sagebrush Lizard

Version 2; May 3, 2018

Introduction

This document defines a protocol for performing presence/absence surveys for the dunes sagebrush lizard (*Sceloporus arenicolus*; DSL) ("DSL Presence/Absence Survey Protocol"). The DSL Presence/Absence Survey Protocol is intended to standardize the methods and level of effort for reliably and practicably documenting the presence or likely absence of individual DSL in areas of potentially suitable DSL habitat. Application of the DSL Presence/Absence Survey Protocol and disclosure of the results of a DSL Presence/Absence Survey are voluntary.

The DSL Presence/Absence Survey Protocol is described below, followed by a discussion of the supporting best available information.

DSL Presence/Absence Survey Protocol

- Survey Area A DSL presence/absence survey may be warranted for lands that are potential habitat for the DSL (i.e., lands that may be used by DSL for breeding, feeding, sheltering, or dispersal). Potential habitat for the DSL may include lands identified as Preferred, Suitable, or Marginal Habitat using a site-specific habitat assessment (e.g., see SWCA Environmental Consultants [2018]; Protocol for Performing Site-specific Habitat Assessments for the Dunes Sagebrush Lizard) or that have been identified as High, Medium, or Low Suitability habitat by landscape-scale models of potential DSL habitat (e.g., cite to Texas State University model, when available). Lands that are not potential habitat for the DSL may not warrant a DSL presence/absence survey, since such areas are not expected to be used by DSL for breeding, feeding, sheltering, or dispersal. The size and configuration of Survey Areas for a DSL presence/absence survey are at the discretion of the landowner/project proponent, but may only include areas for which site access by a "Qualified DSL Biologist" (see below for definition) is available.
- Survey Season DSL presence/absence surveys should be performed between April 1 and July 31 (the "Active Season") when adult DSL are most active above ground and available for detection.
- Suitable Survey Conditions DSL presence/absence surveys should be performed on days when the weather forecast for the weather station closest to the Survey Area shows 0% chance of precipitation and when there are at least 6 hours between dawn and dusk when the air temperatures are predicted to be between 86°F and 104°F.
- Surveyor Qualifications DSL presence/absence surveys should be performed by a "Qualified DSL Biologist," defined as a published DSL researcher having significant DSL field experience (e.g., a researcher who lead and contributed to field studies of the DSL published in peer-



reviewed journals or academic libraries) or by individuals with the following qualifications and experience:

- Apprenticeship under the direct field supervision of a Qualified DSL Biologist for at least
 1 DSL Active Season;
- Have observed and documented the key diagnostic field marks of at least 5 different DSLs;
- Have demonstrable knowledge and field training in herpetology and the identification of herpetofauna; and
- A letter of recommendation from at least one Qualified DSL Biologist, confirming the person's ability to accurately identify DSL in the field.
- Necessary Permits and Authorizations All survey personnel performing a DSL presence/absence survey must have the necessary permits, authorizations, and site access permission to conduct surveys. In Texas, a scientific collecting permit from the Texas Parks and Wildlife Department is needed to capture and handle DSL. In New Mexico, training and certification from the New Mexico Department of Fish and Game is needed to capture and handle DSL.
- **Survey Expiration** The results of a DSL presence/absence survey expire April 1 of the following year, unless three years of DSL presence/absence surveys performed within a 5-year period fail to detect any DSL in all or part of a Survey Area.
- Survey Design for Preferred or Suitable Habitat
 - Visual Encounter Surveys should be performed along sets of parallel transect lines that are spaced 100 meters apart (Figure 1).
 - Up to 4 sets of transect lines may be needed to complete a Visual Encounter Survey:
 - Transect Set A: The orientation of Transect Set A should maximize the number of transects in the set, based on the 100-meter spacing and the spatial configuration of the Preferred or Suitable Habitat.
 - Transect Set B: The orientation of Transect Set B should be perpendicular to
 Transect A and should maximize the number of transects in the set, based on
 the 100-meter spacing and the spatial configuration of the Preferred or Suitable
 Habitat.
 - Transect Set C: The orientation of Transect Set C should be in the same direction as Transect Set A but offset from the locations of the Transect Set A lines by 50 meters.
 - Transect Set D: The orientation of Transect Set D should be in the same direction as Transect Set B but offset from the locations of the Transect Set B lines by 50 meters.
 - Visual Encounter Surveys should be performed by a Qualified DSL Biologist walking slowly along each transect line in a Transect Set at a pace of no more than 2 kilometers per hour, searching along dune slopes, potential basking sites, and under refugia (e.g., vegetation, roots, etc.).
 - Visual Encounter Surveys should be performed when air temperatures are between 86°F and 104°F.



- Visual Encounter Surveys for different Transect Sets must be performed on separate days.
- A Qualified DSL Biologist should continuously scan the area ahead and to either side of a transect line visually searching for DSL, using binoculars to aid detection. It is assumed that a Qualified DSL Biologist can effectively search the area within 20 meters of the transect line.
- Suspected DSL that are detected by a Qualified DSL Biologist should be captured with non-lethal means (i.e., via hand or noose) to verify the identity of the species and document the detection with voucher photographs. Suspected visual detections of a DSL that are not verified with a capture are to be considered "unverified".
- o DSL detections should be documented with:
 - Geographic coordinates of the detection location, as recorded with a GPS receiver with horizontal positional accuracy of at least 5 meters, with the coordinate system and datum clearly identified.
 - Photographic vouchers of the detected DSL showing the 3 key diagnostic characters of the species. Three or more photographs of the captured individual(s) must be taken that show the diagnostic characteristics of the species: 1. lateral view of the whole specimen showing the dorsolateral bands; 2. view of venter showing the scales between the femoral pores; 3. view of the specimen with GPS unit showing the latitude and longitude where the specimen was captured.
 - Size (measured by the snout-to-vent length of the DSL a straight line distance from rostrum to cloaca) and sex (determined via presence or absence of enlarged postanal scales) of the detected DSL.
 - Time of day of the detection.
 - Condition of the animal (e.g., live, dead, healthy, injured).
 - Habitat features at location of capture including vegetation type, landform (e.g. shinnery oak sand dune, shin oak flat), microhabitat location (e.g. open dune slope, vegetated dune ridge, base of blowout).
- Captured DSL should be released at the site of capture as soon as possible following documentation.
- Each verified DSL detection creates a zone of Likely DSL Occupancy that extends 350
 meters from the location of the verified detection in areas of potential DSL habitat (i.e.,
 Preferred, Suitable, or Marginal Habitat). Unverified DSL detections do not create a
 zone of Likely DSL Occupancy.
- Areas determined to have Likely DSL Occupancy do not need to be surveyed again by any method (i.e., Visual Encounter Surveys or Pitfall Trapping Surveys) until the DSL presence/absence survey expires, even if the detection occurs before the end of the normal DSL Presence/Absence Survey Protocol.

• Survey Design for Marginal Habitat

 Pitfall Trapping Surveys should be performed with one of two types of trap installation patterns, as applicable based on the location of the Marginal Habitat relative to areas of Preferred or Suitable Habitat:



- Grid Trap Pattern A grid pattern of traps, each separated by 350 meters, should be applied to areas of Marginal Habitat that are more than 100 meters from the edge of areas of Preferred or Suitable Habitat. The overall placement of the trap grid should maximize the number of traps in the applicable area of Marginal Habitat.
- Line Trap Pattern Two lines of traps that follow the edge of areas identified as Preferred or Suitable Habitat. One line of traps occurs at a distance of 30 meters from the edge of Preferred or Suitable Habitat (30-meter Trap Line) and the other line of traps occurs at a distance of 100 meters from the edge of Preferred or Suitable Habitat (100-meter Trap Line).
 - 30-meter Trap Line Traps are placed 30 meters apart.
 - 100-meter Trap Line Traps are placed 100 meters apart.
- Pitfall traps should be installed as follows:
 - The trap is a 5-gallon bucket buried into the ground with the opening positioned flush with the ground surface.
 - The trap should have 8, 50-milimeter-diameter holes drilled in the bottom to allow water to drain if a rainfall event occurs.
 - The trap should have a cover positioned 25 millimeters above the opening to provide shading.
 - The trap should have 25 millimeters of sand placed in the bottom to provide cover for burrowing animals.
 - A small piece of foam (approximately 150 cubic centimeters) should be placed in the trap to serve as a floating device during a heavy rainfall event, should water drain ineffectively.
 - The trap should be relocated if red ants are discovered in the immediate vicinity.
- Each trap should be open for 5 days under Suitable Survey Conditions.
- Each open trap must be checked once per day, under the supervision of a Qualified DSL Biologist (i.e., a Qualified DSL Biologist must be present in the vicinity to immediately verify any suspected DSL captured in the trap). Caution must be taken when checking the trap, as venomous species may be captured. Trap covers should be lifted away from the body with a tool at least 30.5 centimeters long to reduce the risk of possible envenomation. The sand in the trap should also gently be stirred with the same tool to uncover any animals that may be burrowed beneath the sand.
- DSL detections should be documented with:
 - Geographic coordinates of the detection location, as recorded with a GPS receiver with horizontal positional accuracy of at least 5 meters, with the coordinate system and datum clearly identified.
 - Photographic vouchers of the detected DSL showing the 3 key diagnostic characters of the species. Three or more photographs of the captured individual(s) must be taken that show the diagnostic characteristics of the species: 1. lateral view of the whole specimen showing the dorsolateral bands; 2. view of venter showing the scales between the femoral pores; 3. view of the



- specimen with GPS unit showing the latitude and longitude where the specimen was captured.
- Size (measured by the snout-to-vent length of the DSL a straight line distance from rostrum to cloaca) and sex (determined via presence or absence of enlarged postanal scales) of the detected DSL.
- Time of day of the detection.
- Condition of the animal (e.g., live, dead, healthy, injured)
- Captured DSL should be released at the site of capture as soon as possible following documentation and the trap closed or removed. All other trapped animals should be identified to species (if possible), photographed, and released at least 50 meters away from the trap location as soon as possible following capture.
- The Qualified DSL Biologist should remain aware when travelling between traps for the presence of DSL by continuously scanning the area ahead and to either side, using binoculars to aid detection. Suspected DSL that are incidentally detected by a Qualified DSL Biologist should be captured with non-lethal means (i.e., via hand or noose) to verify the identity of the species and document the detection with voucher photographs (see documentation requirements). Suspected visual detections of a DSL that are not verified with a capture are not valid.
- Each documented DSL detection creates a zone of Likely DSL Occupancy that extends 350 meters from the location of the detection in areas of potential DSL habitat (i.e., Preferred, Suitable, or Marginal Habitat). Unverified DSL detections do not create a zone of Likely DSL Occupancy.
- Areas determined to have Likely DSL Occupancy do not need to be surveyed again by any method (i.e., Visual Encounter Surveys or Pitfall Trapping Surveys) until the DSL Presence/Absence Survey expires, even if the detection occurs before the end of the normal DSL Presence/Absence Survey protocol.
- At the end of the Pitfall Trapping Survey or once a DSL has been verified and documented within a trap, the trap should be closed and removed from the ground.
 The hole should be filled with the original excavated and side-cast material.



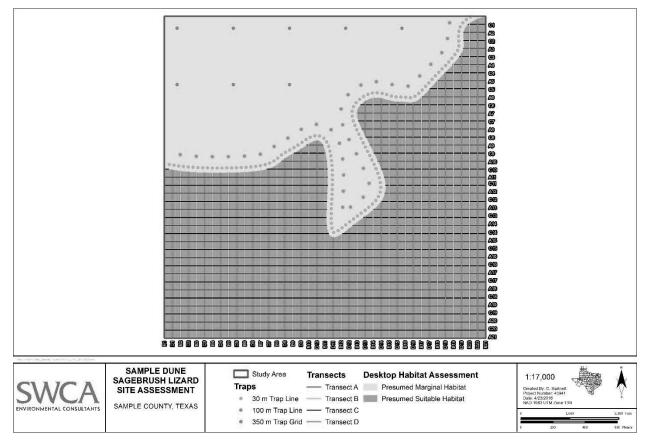


Figure 1. Example survey design for a site contain potentially suitable and marginal DSL habitat.

- Survey Data Sheets Surveyors should complete detailed data sheets for each run of a transect line or each check of a pitfall trap. These data sheets collect information that documents compliance with the DSL Presence/Absence Protocol and provides additional context (e.g., weather conditions, microhabitat, etc.) for DSL detections that can support additional scientific analysis.
- Survey Reports The Qualified DSL Biologist should prepare a report documenting the
 application of this DSL Presence/Absence Survey Protocol to the Survey Area and the results of
 the DSL Presence/Absence Survey relative to the verified detections, if any, of DSL and the
 extent of any zones of Likely DSL Occupancy. Survey Reports should contain the following
 information:
 - Location and size of the Survey Area
 - O Delineation of areas of Preferred, Suitable, or Marginal Habitat (or equivalent) and the basis for that delineation.
 - A figure illustrating of the Survey Design(s) as applicable and applied to the distribution of potential DSL habitats present within the Survey Area (i.e., the location and orientation of transect lines and the locations of pitfall traps). The figure should also



- indicate if and when any parts of the Survey Design were truncated due to the documentation of DSL.
- o The dates and weather conditions during which the survey was performed.
- The dates and locations of any DSL documented within the Survey Area, the means of detection (visual encounter or pitfall trap), and the extents of the corresponding zones of Likely DSL Occupancy.
- The identity of any survey personnel, including Qualified DSL Biologists and individuals directly supervised by Qualified DSL Biologists. The report should also demonstrate the qualifications and experience of the Qualified DSL Biologists.
- Completed data sheets from Visual Encounter Survey transect lines and from Pitfall Trapping Survey traps.

Scientific Basis for the DSL Presence/Absence Survey Protocol

The DSL Presence/Absence Survey Protocol is a standardized and practicable approach for reasonably establishing the presence or likely absence of the species in areas of potentially suitable habitat. The DSL Presence/Absence Survey Protocol is based on the best available information regarding the biology and ecology of the DSL and survey protocols for similar species. The application of the best available science to various aspects of the DSL Presence/Absence Survey Protocol is provided below.

Survey Season

DSL have been captured in all months from February to November (TAMU 2016). However, DSL detections (which appear to be maximized when adult DSL spend time in open, sunny microhabitats) appear to decrease when ambient temperatures are either too cold or too hot. Ambient temperature varies with sun exposure, thus overcast days, shorter days, and precipitation occurring in fall, winter, and early spring create conditions that lower ambient temperatures and can result in lower activity of DSL (Sartorius et al. 2002). As summer progresses toward warmer temperatures, DSL detections also appear to decrease as DSL more frequently seek shelter from extreme heat by harboring in shade or under the sand, consequently reducing the detectability of DSL during these periods (Fitzgerald and Painter 2009; Sartorius et al. 2002). The most suitable survey conditions for DSL appear to occur on full-sun days with an ambient temperature range (measured 0.5 cm above the surface) between 86° F and 104° F (Sartorius et al. 2002; Sena 1985). These conditions are most often achieved from mid-spring through mid-summer. Therefore, the Survey Season prescribed in the DSL Presence/Absence Protocol is restricted to the period between April 1 and July 31.

Suitable Survey Conditions

Surveys should be conducted under environmental conditions that that facilitate detections of the DSL, if present. For the DSL, peak seasonal activity occurs from April through July; although, DSL may be observed in any month if environmental conditions are suitable (Degenhardt et al. 1996; Fitzgerald and Painter 2009; Walkup et al. 2017). All DSL demographic groups are more active from April through August than in other months; however, DSL adults are more commonly encountered from April through July (TAMU 2016; Walkup et al. 2017). The size of adults relative to juveniles and hatchlings, and the more vegetated "edge" habitats thought to be used by juveniles and hatchlings (Fitzgerald 2005; TAMU 2016), indicate that adult DSL may be easier to detect. Consequently, surveys should be constrained to



the period between April 1 and July 31 to help maximize the probability of detection of DSL (i.e., a higher proportion of larger DSL adults using more open breeding territories).

Visual Encounter Survey Time of Day

Two peaks in DSL detection coincide with the daily thermoregulatory patterns of the species: after sunrise to mid-day and early afternoon to dusk (i.e., 0700 to 1200 and 1400 to 1800). During these periods, substrate temperatures are typically between 60°F and 120°F (Degenhardt et al. 1996; Grant 1990, Radder et al. 2005; Sartorius et al. 2002; Sena 1985, Smolensky and Fitzgerald 2006). Anecdotal evidence suggests a potential decrease in probability of encountering or detecting DSL during the midday and (to a more limited extent) the afternoon survey periods (Sena 1985; Fitzgerald et al. 2011), likely resulting from DSL retreating to shaded areas for thermoregulation during hotter periods of the day.

Survey Designs for Different Habitat Types

Many lizard and snake species can be easily detected via visual encounter surveys, and most field studies seeking to document DSL presence have to-date been performed via visual encounter surveys (Fitzgerald *in* McDiarmid et al. 2012; Fitzgerald et al. 1997; Laurencio et al. 2007; Fitzgerald et al. 2011; Forstner et al. 2015 *unpublished data*). However, visual encounter surveys may not detect DSL that are present but hidden by vegetation or sand/soil (Smolensky and Fitzgerald 2010). Furthermore, in habitats where DSL have been shown to occur in lower numbers (i.e., Marginal Habitat [Fitzgerald et al. 1997; Fitzgerald et al. 2011]), detections will may also be lower due to a correlation between detectability and population size (Pollock et al. 1990). Thus, the detectability of DSL is expected to vary across habitat types, indicating that an alternative survey method that does not rely exclusively on visual encounters may be warranted.

Visual Encounter Surveys are an efficient method of assessing the presence of DSL in areas possessing the characteristics of Preferred or Suitable Habitat (e.g., a complex of large shinnery oak dunes [Sena 1985; Degenhardt et al. 1996; Fitzgerald et al. 1997; Fitzgerald et al. 2005; Fitzgerald and Smolensky 2011; Leavitt and Fitzgerald 2013; Hibbitts et al. 2013; Ryberg et al. 2014]). Preferred and Suitable Habitats are anticipated to have a relatively greater probability of being occupied by DSL and in greater numbers relative to Marginal Habitat (Fitzgerald et al. 1997; Smolensky and Fitzgerald 2010; Fitzgerald et al. 2011; Leavitt and Fitzgerald 2013; Ryberg et al. 2013; Walkup et al. 2017), likely resulting in greater detection probabilities (Pollock et al 1990). Research indicates that detection probabilities of DSL during Visual Encounter Surveys increase in habitats dominated by shinnery oak dunes relative to habitats with mixed shinnery oak and grass dunes, or habitats lacking shinnery oak dunes (Fitzgerald et al. 2011; Forstner 2011, *unpublished data*). However, on average, DSL are detected within 23 to 60 minutes in shinnery oak habitat during adult peak seasonal activity periods (Fitzgerald et al. 1997; Fitzgerald et al. 2011; Smolensky *unpublished data* 2005). Thus, if DSL populations are present, they can likely be detected quickly during Visual Encounter Surveys conducted during suitable conditions in Preferred or Suitable Habitats.

Species that are difficult to detect can be effectively sampled via pitfall trap surveys (Fisher and Rochester *in* McDiarmid et al. 2012). Pitfall traps surveys have been shown to capture greater diversity and relative abundances of herpetofaunal when compared to other survey techniques, including visual



surveys (Fisher and Rochester *in* McDiarmid et al. 2012; Hutchens and DePerno 2009; Ribeiro-Junior et al. 2008; Wilson and Gibbons *in* Dodd 2010). Although, pitfall trapping requires more effort for the initial installation of traps relative to visual encounter surveys, these studies indicate that pitfall trapping may be better suited to detect species with lower detection probabilities as they often yield higher capture rates (i.e. detections) than visual encounter surveys. In areas where DSL populations are suspected to be low, DSL were detected via pitfall trapping (Walkup et al. 2017).

In summary, in Preferred Habitat and Suitable Habitat, Visual Encounter Surveys should be implemented based on the anticipated higher probability of detection relative to Marginal Habitat. Assuming surveys are conducted during Suitable Survey Conditions, some of the DSL population, if present, should be available for detection via the Visual Encounter Survey method described above.

In Marginal Habitat, pitfall trapping surveys should be implemented based on the anticipated lower detection rate of DSL and the additional survey effort that may be needed to detect DSL, if present. The pitfall trap design described above is strategic in maximizing potential detection of DSL by placing traps in the transition between Preferred/Suitable Habitat and Marginal Habitat when implementing the Line Trap Patterns, or via broad spatial coverage of the site via the Grid Trap Pattern.

Visual Encounter Survey Design

The Visual Encounter Survey design uses four sets of transect lines with parallel and perpendicular orientation. Sets of parallel transect lines are 50 meters apart. The separation distance between parallel transects is based on average maximum daily movements of DSL, according to a two-year study of 36 DSL tracked via radio transmitters (7.65 45.18 meters [Young et al. 2018]). The use of defined transect lines in this DSL Presence/Absence Protocol provides a means for ensuring standardized, reliable, and consistent the spatial coverage of relevant portions of the Survey Area. The meandering or haphazard traversing of study plots used by researchers in other studies does provide such consistency and is subject to bias.

Visual Encounter Survey is a cost-effective method for surveying herpetofauna in a variety of habitats in a short period of time (Doan 2003; Ribeiro-junior et la. 2008). The ability to visually detect species during surveys (i.e. detection probability) varies by habitat and biology of the species (Burnham and Anderson 1984; Diefenbach et al. 2003; Otto and Roloff 2011). The open habitat, territorial nature, and minimal movement behavior of DSL make the species and the habitat suitable for this methodology. In fact, detections of DSL are quite high (0.81) adjacent to the surveyor's transect line (Smolensky and Fitzgerald 2010).

The spacing and overlap of transect lines was chosen to address issues of visual detection, movement patterns of DSL, and spatial coverage of the site. Previous research on the DSL has indicated that detections of the species decline with increasing distance from the transect line, such that beyond 20 meters DSL are very difficult to visually detect (Smolensky and Fitzgerald 2006). Thus, transects should be spaced at least 20 meters apart to effectively survey a site. Telemetry data and mark-recapture data (Ryberg et al. 2013; Walkup et al. 2017; Young et al. 2018) suggests lizards have localized movements within territories typically of 20 meters but may be up to 50 meters. Thus, transects should be spaced at least 50 meters to observed DSL in different territories in a site. Lastly, this design balances the tradeoff between maximizing spatial coverage of site and maximizing precision through replication. The design



provides visual coverage of 96% of the habitat area, with 48% of the habitat area receiving double coverage. Because the objective of the study is to assess presence of DSL and not relative abundance, densities or occupancy modeling, intensive replication to assess detection probabilities to correct numbers of DSL observed are not warranted.

Pitfall Trapping Survey Design

The size, installation, and duration of the Pitfall Trapping Survey is based on a widely implemented and standardized methods described in various herpetological textbooks such as *Reptile Biodiversity:*Standard Methods for Inventory and Monitoring (McDiarmid et al. 2012) and Amphibian Ecology and Conservation: A Handbook of Techniques (Dodd 2010). The use of drift fences was omitted due to intractability of trench excavation in areas with extensive tree and shrub root networks.

The spacing of traps is based on available data on DSL dispersal and movement patterns from five studies, each spanning multiple years (Fitzgerald et al. 2005; Fitzgerald and Hill 2007; Ryberg et al. 2013, Walkup et al. 2017; Young et al. 2018). According to these studies daily movements of DSL average between 20 and 30 meters, within and among blowouts of shinnery oak dunes. Thus the 30-meter trap spacing is intended to capture DSL that are moving locally adjacent to Preferred or Suitable Habitat. The DSL also have longer movements ranging between 50 and 343 meters and overlapping home ranges averaging 614.8 m² for females and 1,000 m² for males (Young et al. 2018). Thus, traps spaced 100 meters apart are intended to capture DSL from non-overlapping territories or DSL moving longer distances during longer foraging forays or dispersal events on the edges of Preferred or Suitable Habitat, as has been documented in the aforementioned studies. The spacing of the Grid Trap Pattern is based on the longest recorded multi-day movement distance for a DSL and is meant to sample broad extents of Marginal Habitat for potentially dispersing individuals (Fitzgerald et al. 2005; Hill and Fitzgerald 2007; TAMU 2016).

Photographic Documentation of DSL Detections

There are two other lizards, the common side-blotched lizard (*Uta stansburiana*) and the prairie lizard (*Sceloporus consubrinus*), that co-occur with the DSL and may be easily mistaken for DSL if the lizard is observed while fleeing the observer. Photographic documentation of DSL detections is critical to verifying that the DSL detection is accurate (Fitzgerald et al. 2011). Photo documentation is among the criteria for documenting DSL presence by the New Mexico Department of Game and Fish (NMDGF 2012).

Zone of Likely DSL Occupancy

This DSL Presence/Absence Survey Protocol establishes a zone of Likely DSL Occupancy that extends 350 meters from the location of a documented DSL detection in areas of potential DSL habitat. The 350-meter distance is based on previous research documenting the movement of DSL between interconnected shinnery oak dune blowouts within their home range, but no movements exceeding 350 meters in undisturbed habitat (Fitzgerald et al. 2005; Hill and Fitzgerald 2007; TAMU 2016). Additionally, previous research has indicated that DSL occur in local aggregations (0.5 2.6 DSL/100 m²) with overlapping territories (Hill and Fitzgerald 2007; Ryberg et al. 2013, TAMU 2016). Thus, the detection of a DSL at a given point suggests that the area surrounding that detection may also be occupied by that individual and other co-occurring DSL. No studies have indicated that DSL occur singly in a given area,



except when females undergo nesting migrations or juveniles are dispersing (Fitzgerald et al. 2005; Hill and Fitzgerald 2007). Even in these instances, the data do not suggest DSL traveled more than 350 meters from an area where other DSL occur.

Survey Expiration

The one-year expiration time frame for results of a DSL presence/absence survey addresses the potential for DSL to be present but undetected at the site due to very low population densities that create very low detection probabilities (Fitzgerald et al. 2011), and the potential for DSL to enter the site subsequent to the survey from the immediately adjacent un-surveyed surrounding area. The DSL have a generation time of one year (Fitzgerald and Painter 2009) and DSL may expand to surrounding suitable habitat at estimated diffusion rates of 2,786 - 20,276 m²/year (Ryberg et al. 2013; Walkup et al. 2017). A genetic study suggests that regular gene flow can occur between populations separated by 3,600 meters (Chan et al. 2009). Thus, if the site is located within a broader swath of suitable DSL habitat, DSL may enter the site from the adjacent area.

Previous studies indicate that DSL detectability varies over time as shown during 3 years of successive visits of Monahans Sands State Park and two years of successive visits at other sites in Texas (Fitzgerald et al. 2011). After three years of surveys, DSL were regularly detected at Monahans Sands State Park. Repetition of surveys over just 3 seasons can substantially increase the precision of data (Mackenzie 2005). Thus, three years of consecutive surveys are anticipated to provide robust data that the site is unoccupied and no additional surveys are warranted for the site.

Surveyor Qualifications

DSL surveyor qualifications are based on a myriad of challenges for surveying DSL due to the morphology of the DSL, its habitat, and similar looking conspecifics and congeners within the ecosystem. DSL are cryptically colored and can be difficult to detect via visual surveys by an untrained observer. DSL may also vary in their dorsal coloration within and among populations (Fitzgerald and Painter 2009) that may result in misidentification. Anecdotal information suggest that surveys conducted by inexperienced personnel have resulted in misidentification of DSL during visual surveys (N. Smolensky *per obs.* 2006; M. McMillan *pers. comm.* 2018). Thus, experience in detecting and handling multiple DSL improves the surveyor's ability to recognize DSL during Visual Encounter Surveys if present on-site.

The surveyor must be able to capture DSL via non-lethal and non-injurious techniques (e.g., no rubber bands) commonly taught during field training in herpetology. Once captured, the surveyor must possess the skills to accurately differentiate DSL from the prairie lizard, necessitating an understanding of lizard anatomy and scale counting techniques only garnered via experience in the identification of herpetofauna.

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 Certification Class. Kristin Madden Conservation Services Division, New Mexico Game and Fish

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ATLAS SAND COMPANY PLAN OF OPERATIONS FOR ATLAS 1 GLO HOLDINGS Project No. 10977-002

Winkler County, Texas

Prepared for: Atlas Sand Company, LLC

5914 W. Courtyard Drive, Suite 200 Austin, Texas 78730

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4 Shooting Club Road Boerne, Texas 78006 830.249.8284

TEXAS REGISTERED ENGINEERING FIRM NO. 4524 TEXAS REGISTERED GEOSCIENCE FIRM NO. 50112

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EXECUTIVE SUMMARY

Atlas Sand Company, LLC (Atlas Sand) proposes to develop within portions of an approximately 5,847 acre holding, referred to as Atlas 1, within Winkler County, Texas. Of the Atlas 1 holding, approximately 4,006 acres are Relinquishment Act lands administered by the Texas General Land Office (GLO; Attachment A, Figure 1). This Plan of Operations is specific to the GLO portions of Atlas 1.

Operational Overview

The mineral commodity to be mined is the high quartz content sand that exists in this area. The mineral commodity is of the correct grain size, roundness, sphericity, and strength for the use of hydraulic fracturing methods used by the oil and gas industry in the neighboring Permian and Delaware Basins.

The operation is anticipated to begin in 2018, and is estimated to last well beyond 20 years. In the first two years of operation, the estimated annual production is 3.1 million metric (MM) tons per year. Beginning in 2020, the annual production is estimated to increase to 6.2 MM tons per year, dependent on market conditions. The total anticipated production for this operation during the first 20 years of its life, based on these estimates, is 117.8 MM tons.

Existing Environment

The approximately 4,006-acre subject area, similar to the surrounding Permian Basin area, is utilized and surrounded by previous and current oil and gas operations and associated infrastructure. Review of the site showed no mapped surface water or other regulated ecological or cultural resources. Of the four federally-listed species with the potential to occur within Winkler County, none are likely to occur within the subject area or effected by development.

The dunes sagebrush lizard (DSL) inhabits shinnery oak dune complexes within southeastern New Mexico and west Texas, and has been previously considered for listing due to development within its habitat.

Diligent and Sustainable Mining Practices

The primary environmental concern, as expressed by early agency coordination, is potential impacts to DSL. As such, Atlas Sand has developed a mining operational framework which would set the standard in sustainable development of the resource. The mine plan minimizes disturbances by considerate positioning of development areas, and limiting disturbances to the surface.

Further, an overall conservation plan is being developed which includes the following:

- Setting aside an approximately 1,400-acre conservation area of the highest quality habitat within the subject area, (accounting for approximately 25% of the total Atlas Sand position); and
- Reclaiming a minimum of 247 acres of the anticipated 686 mined acres, for a net impact of 439 acres, to create and enhance quarried and adjacent GLO land to sustainable habitat for the DSL and other native resources over the first 20 years of operation.

Introduction

Atlas Sand Company, LLC (Atlas Sand) proposes to develop within portions of an approximately 5,847 acre holding, referred to as Atlas 1, within Winkler County, Texas. Of the Atlas 1 holding, approximately 4,006 acres are Relinquishment Act lands administered by the Texas General Land Office (GLO; Attachment A, Figure 1). This Plan of Operations is specific to the GLO portions of Atlas 1, and includes a 1400-acre conservation area and the reclamation of at least 247 acres of the anticipated 686 acres to be mined over the next 20 years.

Oil and gas operations within the Permian Basin have had to rely on importing sand from out-of-state sources, typically Wisconsin and Illinois. The availability of quality, locally-sourced sand, coupled with the downturn in oil prices, has driven the need for production sources close-to-market. Ready access to superior sand with lowered transportation costs makes the Permian Basin even more internationally competitive than it already is. Sand available at lower cost will be beneficial for oil and gas operators in the Permian during inevitable periods of lower oil prices.

Atlas Sand leadership has a demonstrated track record of stewardship and long-term investment in their communities. With a recent influx of sand companies entering the Permian Basin market, Atlas Sand is committed to set a standard for:

- Quality product development at lower acquisition, production, and transportation costs;
- Diligent mining practices that are above and beyond environmental regulatory requirements;
- A cooperative approach with Texas agencies, specifically the Texas Comptroller of Public Accounts and the GLO;
- A positive, long-term impact within the community; and
- Conservation and restoration practices which positively impact the existing natural resources, and will provide valuable biological and ecological research and research opportunities.

To that end, the Atlas Sand team has developed this Plan of Operations within the Atlas 1 holdings.

1.0 ENVIRONMENTAL SETTING

1.1 Project Location

The approximately 4,006-acre GLO portion of the Atlas 1 tract, hereafter referred to as the subject area, is located at the intersection of State Highway (SH) 115 and Farm-to-Market (FM) 874 in Kermit, Winkler County, Texas (Attachment A, Figure 2). The approximately 4,006-acre subject area is intersected by FM 874 and SH 115 and is surrounded on all sides by oil and gas production pads, roadways, and undeveloped land. The subject area has been utilized for oil and gas well production and its associated infrastructure.

1.2 Legal Description

The legal description of parcels within the Atlas 1 tract are provided in Table 1 (Attachment A, Figure 3).

Table 1. Legal description of parcels within the Atlas 1 tract.

Map Tract #	Gross Acres	Property Description	Fee / GLO
1	642.35	PSL BLK 77, SEC 24	Fee *
2	641.44	PSL BLK B2, SEC 1	GLO
3	641.45	PSL BLK B2, SEC 2	GLO
4	320	PSL BLK A57, SEC 29: S/2	GLO
5	640	PSL BLK B2, SEC 8	GLO
6	640	PSL BLK B2, SEC 9	GLO
7	641.71	PSL BLK B2, SEC 3	GLO
8	240	PSL BLK B2, SEC 19: W 3/8	GLO
9	241.8	PSL BLK B2, SEC 12: W 3/8	GLO
10	640	PSL BLK 77, SEC 9	Fee *
11	276.5	PSL BLK B2, SEC 10 NW	Fee *
12	276.5	PSL BLK B2, SEC 10 SW	Fee *
Totals:	5,846.75		

^{*} This Plan of Operations is for the GLO properties, and not the fee properties.

1.3 Land Use and Zoning

Neither the City of Kermit nor Winkler County has zoning laws that affect the subject area.

1.4 General Physiography

According to the *Ecoregions of Texas* (Griffith et al. 2007), the subject area is located within the Shinnery Sands High Plains ecoregion (Attachment A, Figure 4). The Shinnery Sands High Plains ecoregion is defined as land that includes sand hills, dunes, and flat sandy recharge areas (Griffith et al. 2007). The ecoregion is named for the shinnery oak (*Quercus havardii*) shrub that provides stabilization for the sandy areas that are prone to wind erosion. The largest of the sand dunes, located at the southwestern edge of the Llano Estacado, is made of sands that were blown out of the Pecos River Basin. These dunes serve as a recharge area for the Pecos River. (Griffith et al. 2007).

According to the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles, *Notrees NW* and *Vesrue*, the elevation of the subject area ranges from 3,050 feet above mean sea level (AMSL) to 2,965 feet AMSL and slopes from northwest to southeast across the subject area (Attachment A, Figure 5; USGS 1970 and USGS 1971).

1.5 Climate

The Texas High Plains have the coldest winters in Texas with an average annual temperature of 59 degrees Fahrenheit. Precipitation ranges from 21 inches in the east to 12 inches in the west. The High Plains is irrigated mainly by the Ogallala formation, and the sun and wind greatly reduce the amount of rainfall that is available to saturate the soil (TPWD 2017).

The nearest city to the subject area is Kermit, Texas. According to the National Oceanic and Atmospheric Administration (NOAA) Kermit, Texas, climate data for 2008 to 2016 were available to analyze. The total annual precipitation for these years and the highest daily total of precipitation in the year are listed in Table 2 below. The average annual, average maximum, and average minimum temperatures for each year are provided in Table 3 (NOAA 2017).

Table 2. NOAA Climate Data - Precipitation

Year	Total Annual Precipitation (inches)	Highest Daily Total of Precipitation (inches)	Date of Occurrence
2008	7.63	1.30	Oct-06
2009	10.78	2.49	Jul-05
2010	9.80	1.65	Jun-26
2011	1.80	0.60	Dec-24
2012	16.39	3.0	Sep-29
2013	2.00	1.3	Jan-10
2014	6.80	3.08	Sep-19
2015	*	*	*
2016	0	0	Dec-31

^{*}Data not reported or missing.

Table 3. NOAA Climate Data	Temperature
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Year	Average Annual Temperature (°F)	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)
2008	*	79.5	*
2009	64.1	80.0	48.2
2010	63.9	79.6	48.3
2011	65.2	81.6	48.8
2012	65.2	80.8	49.5
2013	*	*	*
2014	63.7	78.8	48.7
2015	*	*	*
2016	65.1	80.3	49.9

^{*}Data not reported or missing.

1.6 Geology

The subject area lies within the *Pecos Sheet* of the Geologic Atlas of Texas (BEG 1976). Two mapped geologic units intersect the subject area: *Dune and dune ridges* (Qsd) and *Sand Sheets, Dunes, and Dune Ridges* (Qsu) (BEG 1976; Attachment A, Figure 6).

1.7 Surface and Groundwater

Surface Water

According to the USGS National Hydrography Dataset (NHD) and aerial imagery, no flowlines or waterbodies were identified within the subject area (USGS 2017).

Groundwater—Dockum Aquifer

The Dockum aquifer is classified by the Texas Water Development Board (TWDB) as a minor aquifer, with geographic extents spanning from the northwest corner of the Texas panhandle to the west central regions of Texas (e.g. Reagan, Crane, Ward, and Winkler counties; George et al. 2011). Locally, the aquifer is utilized to meet a variety of needs including irrigation, public drinking water supply, livestock production, oil and gas extraction, and manufacturing (Bradley and Kalaswad 2003).

The sandstone and shale beds comprising the Dockum Group are generally horizontal, due in large part to the fluvial, deltaic, and lacustrine depositional processes that are believed to have been responsible for the deposition of fine and course grained materials comprising the Dockum Group (Mace et al. 2001). The water bearing strata of the Dockum Group that make up the Dockum aquifer is comprised primarily of Triassic aged sediment deposits consisting of alternating shales and sandstones, which range in unit thickness from 50 feet (ft)-100 ft (Mace et al. 2001). The water bearing units of the Dockum Aquifer can be generally divided into three zones; Upper, Middle and Lower. The Upper, surface zone is located roughly 100 ft-150 ft below ground surface (bgs). This zone is typically fresh and quick to recharge, however the zone can often be depleted. The water bearing middle zone, which ranges from 450 ft-650 ft bgs, is subject to variable yield rates and water quality (Mace et al. 2001). However, water quality within the Dockum aquifer generally worsens with increasing depth due in part to salinity and total dissolved solids increasing concurrently with increases in depth. The third lower zone is a brackish unit, and is significantly deeper (900 ft-1,000 ft) than the other two (Mace et al. 2001).

1.8 Soils

According to the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS; NRCS 2017), the subject area contains two mapped soil units (Attachment A, Figure 7; Table 4).

Table 4. Mapped Soil Units within subject area.

Soil Mapped Unit	Farmland Classification	Map Unit Composition	Typical Profile	Hydrologic Soil Group/Hydric Soil Rating
Dune Land (DUB)	Not prime farmland	Dune land: 90 percent Minor components: 10 percent	H1 - 0 to 80 inches: fine sand	Group A/No Hydric Soil Rating
Penwell-Dune land, complex hummocky (PND)	Not prime farmland	Penwell and similar soils: 60 percent Dune land: 30 percent Minor components: 10 percent	Penwell: H1 - 0 to 15 inches: fine sand H2 - 15 to 80 inches: fine sand Dune Land: H1 - 0 to 80 inches: fine sand	Group A/No Hydric Soil Rating

1.9 Biological and Cultural Resources

Biological Resources

Plant and Animal Community

The Sand Hills ecological site "developed in wind-worked alluvial or aeolian deposits" and the associated plant community is influenced by the harsh climate and lack of soil development (NRCS 2010). Plant species that are "deep rooted, soil stabilizing, and drought tolerant have the advantage" in this site, such as shrubs, taller grasses, and some tap-rooted forbs (NRCS 2010).

Wildlife found in the Sand Hills ecological site include antelope, deer, quail, and dove (NRCS 2010). Antelope inhabit the open, treeless landscapes, while deer seek the wood components for browse and cover, and quail and dove utilize the tall grasses for food and cover (NRCS 2010).

Federally-Listed Endangered, Threatened, and Candidate Species

According to the USFWS Environmental Conservation Online System (ECOS), Information for Planning and Consultation System (IPaC), four federally-listed endangered or threatened species have the potential to occur within Winkler County, Texas. Of the four species, two are federally-listed as endangered and two are federally-listed as threatened (USFWS 2017).

The federally-listed species include the following:

- Endangered
 - o Least tern (Sterna antillarum)
 - o Northern Aplomado falcon (Falco femoralis septentrionalis)
- Threatened
 - o Piping plover (Charadrius melodus)
 - Red knot (Calidris canutus rufa)

The USFWS ECOS IPaC database (2017) states that the least tern, piping plover, and red knot should only be considered in an effects analysis if the project is a wind energy project. As the proposed activities are not related to a wind energy project, potential impacts associated with the proposed project to the least tern, piping plover, and red knot will not be assessed in this review.

Though not a listed species, the dunes sagebrush lizard (*Sceloporus arenicolus*; DSL) was mentioned as a species of concern during early agency coordination by the Atlas Sand team. In response to this concern, the DSL is considered in this review and overall mine and reclamation plan.

Northern Aplomado Falcon

Federal Status: Endangered

The northern aplomado falcon (*Falco femoralis septentrionalis*) was listed as endangered on March 27, 1986, without proposed critical habitat (USFWS 1986). A five-year review was initiated on March 29, 2010 (USFWS 2010a) and the findings were published on August 26, 2014 (USFWS 2014). The 5-year review did not recommend a change to the species' endangered status (USFWS 2014). At the time of listing, the northern aplomado falcon was considered extirpated as a breeding species within the U.S. and was only known as a breeding species within portions of eastern Mexico (USFWS 1986). As part of a program to reintroduce the northern aplomado falcon throughout its historical range in the U.S., USFWS began releasing the birds in south Texas in 1978 (USFWS 2014). In 2002, the re-introduction program expanded to west Texas, near Valentine, Texas, where the species was released annually through 2011 (USFWS 2014). However, the program was suspended in 2012 because no breeding pairs were identified in 2011 in combination with extreme drought (USFWS 2014).

In the Chihuahuan Desert, the aplomado falcon is found primarily in open grasslands (USFWS 2014) with low densities of mesquite (*Prosopis glandulosa*) or yucca (*Yucca torrey* and *Y. elata*). The open grasslands may secondarily include scrub and woodlands in small patches (USFWS 2014). Occupied breeding areas in northern Mexico consist of, or is approaching, the Historic Climax Plant Community with 29 70 percent basal ground cover and five to 56 woody plants per acre (USFWS 2014). The northern aplomado falcon is a non-migratory bird of prey that does not build their own nests, requiring the abandoned nests of other large raptors for nesting, preferably located in large multi-stemmed yuccas or mesquite trees (USFWS 2014). The species predominately preys on birds, insects, rodents, small snakes, and lizards (USFWS 2014). Historically (USFWS 2014), the decline of the northern aplomado falcon in the U.S. is believed to be from shrub encroachment and the bio-accumulation of the insecticide dichlorodiphenyltrichloroethane (DDT). Currently (USFWS 2014), the lack of re-introduction success is believed to be caused by a combination of shrub encroachment, drought, and the increased presence of great horned owls (*Bubo virginianus*).

Review

Texas Parks and Wildlife Department (TPWD) maintains a database of elemental occurrences (EOs) of Rare and Species of Greatest Conservation Need throughout Texas within the Texas Natural Diversity Database (TxNDD). Desktop review of the TxNDD only identified EOs of the northern aplomado falcon within south Texas (TxNDD 2017); no known EOs of the northern aplomado falcon were identified within, or in the vicinity, of the subject area.

The west Texas re-introductions of the northern aplomado falcon occurred to the southwest of the subject area. It is unknown if the northern aplomado falcons re-introduced to west Texas died of starvation, were utilized as prey by other species, or if the birds relocated to suitable habitat (USFWS 2014).

However, given that the known suitable habitat is located to the south of the re-introduction sites, and current land use of the subject area and the immediate vicinity is grazing land, it is unlikely that any of the re-introduced individuals traveled northwest towards the subject area.

It is the professional opinion of Westward Environmental, Inc. that the occurrence of northern apolomado falcons within the subject area is extremely unlikely.

Dunes Sagebrush Lizard

Federal Status: Not Listed

The DSL is a small, pale colored lizard that inhabits shinnery oak dune complexes in southeastern New Mexico and west Texas. DSL was first described around 1960, but was commonly recognized as part of another similar species, *S.graciosus*. DSL was first recognized as a distinct species in 1992. Since that time, research efforts to describe the species, its habitat, and its range have been focused primarily within the New Mexico portion of the range. Currently, the description of the species and its basic habitat requirements are generally accepted by the scientific community; however, knowledge of specific habitat requirements and detailed mapping of DSL habitat in Texas is currently limited.

The sand dune lizard (S. graciosus arenicolus) was first reviewed for inclusion on the list of Endangered and Threatened Wildlife and Plants under the ESA in 1982, USFWS designated the species as Category 2, indicating that, given the current information known to USFWS, listing the species as either endangered or threatened was possibly appropriate but sufficient data to propose listing was not available (USFWS 1982). In 1985, USFWS re-categorized the species as 3c, where Category 3 species were once considered for listing but are no longer so, with sub-category 3c indicating that the species is no longer considered for listing because the species is either more widespread and/or abundant or less susceptible to identifiable threats than previously thought (USFWS 1985). The DSL, as a distinct species, was designated as Category 2 in 1994 (USFWS 1994) and maintained this designation in 2001 (USFWS 2001) and 2002 (USFWS 2002). The species maintained the Category 2 designation in 2004, based on a stated imminent threat posed by oil and gas development and a proposed rule to list the species was only precluded based on USFWS' higher priority listing actions (USFWS 2004a and b). In 2008, USFWS stated that they had not updated the status of the species because they were in the process of developing a listing rule for the species (USFWS 2008). The DSL was proposed for listing as endangered on December 14, 2010, at which time USFWS stated that the designation of critical habitat was prudent but none was designated at that time (USFWS 2010b). USFWS (2011a) re-opened the comment period of the proposed listing on April 7, 2011. On December 5, 2011, USFWS (2011b) announced a six-month extension of the final determination to list the species and re-opening of the

comment period based on "substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the proposed listing rule". USFWS (2012a) re-opened the comment period and announced a signed conservation agreement for the DSL in Texas on February 24, 2012. The proposed rule to list the DSL as endangered was withdrawn on May 19, 2012, based on USFWS' determination that the threats to the species were no longer as significant as believed (USFWS 2012b).

DSL habitat consists of active and semi-stabilized sand dunes (hummocks) associated with scattered codominant stands of shinnery oak and sand sagebrush (*Artemisia filifolia*) (Degenhardt and Sena 1976, Degenhardt et al. 1996). Interspersed within the shinnery oak dunes are low-lying depressions that lack vegetation, frequently referred to as "blowouts." These blowouts are utilized by DSL for thermoregulation and early season basking by adult males in April and May (Sena 1985).

The DSL is insectivorous; feeding on spiders, ticks, grasshoppers, ants, crickets, ladybugs, and other small beetles and larvae, either adjacent to, or within shinnery oak patches (Degenhardt and Jones 1972). These lizards are most active from mid-April through October and mate in May to early July. Females will lay three to six eggs per clutch (Sabath 1960, Cole 1975) once, in mid-June, or twice, the second clutch from late July to early August, in a breeding season. Clutches are deposited approximately 18 centimeters (cm) below the surface at the boundary between dry and moist sand (Fitzgerald and Painter 2009).

Review

As DSL is not a federally-listed species, all efforts regarding protection or conservation are strictly voluntary. To that end, planned voluntary conservation measures to be implemented by Atlas Sand include the following:

- Retaining permitted biologists to conduct surveys of the subject area. These surveys are anticipated to be utilized as part of an overall conservation program, which includes avoidance and minimization efforts and the potential for habitat restoration;
- Setting aside an approximately 1,400-acre conservation area, accounting for about 25% of the total Atlas Sand position, which is not to be mined anytime in the foreseeable future; and
- Reclaiming a minimum of 247 of the 686 acres to be mined in the first 20 years of the project life. Efforts to further increase and improve reclaim acreage will be ongoing throughout the life of the project. Section 3.0 details the reclamation plan.

Scientific understanding of DSL and their habitat is an on-going field of research. While the best available science is to be utilized, knowledge gaps are known to exist and current models offer opportunity for refinement. For example, available habitat mapping data is limited. The "Likelihood of Occurrence" map utilized as part of the Texas Conservation Plan (TCP 2012) provides a starting reference; however, categories are defined on a broad scale and can result in an inaccurate representation of a given site as within, or outside of, DSL habitat. Data collection and analysis by biologists will aid in the refinement of the definition of habitat types, especially within the subject area. Conservation and reclamation efforts will be refined as gaps in the scientific understanding are filled in, both from the biologists working on the project and outside research as well.

The dunes sagebrush lizard is not a federally-protected species; as such, all conservation and reclamation efforts implemented by Atlas Sand regarding the DSL are strictly voluntary.

Cultural Resources

If there were significant playas, ancient springs, or lakes within the subject area, then the subject area would have a high probability to contain archeological deposits. However, there are no permanent water sources mapped within the subject area, and the area has been subject to significant impacts from oil and gas development. Therefore, the subject area appears to have a moderate probability to contain archeological sites (Attachment B).

2.0 MINE PLAN

The mine plan provides an operational framework outlining responsible parties, anticipated timeframe of operations, resource allocation, and regulatory compliance.

2.1 Owner/Operator/Agent

The owner, operator, and agent is Atlas Sand Company, LLC.

2.2 Operations Data

The mineral commodity to be mined is the high quartz content sand that exists in this area. The mineral commodity is of the correct grain size, roundness, sphericity, and strength for the use of hydraulic fracturing methods used by the oil and gas industry in the neighboring Permian and Delaware Basins.

The operation is anticipated to begin in 2018, and is estimated to last well beyond 20 years. In the first two of years of operation, the estimated annual production is 3.1 million metric (MM) tons per year. Beginning in 2020, the annual production is estimated to increase to 6.2 MM tons per year, dependent on market conditions. The total anticipated production for this operation during the first 20 years of its life, based on these estimates, is 117.8 MM tons.

2.3 Operational Characteristics

Vegetation, if any, will be evaluated to determine if it could be transplanted as part of the overall restoration program. If transplanting fits within the needs of the plan and the site, at that time, it will be done. All other vegetation, if any, will be removed. There is very little overburden at the site. As mining progresses, there may be certain layers of interburden that are undesirable. Both overburden and interburden will be excavated and used for reclamation material.

The mine will be an open pit excavation that utilizes a load and carry method for the movement of raw materials and unused materials. The natural angle of repose for the partially consolidated sand will be utilized as the general slope for pit walls. It is anticipated that this will be a 1:1 slope. This meets the Department of Labor Mine Safety and Health Administration (MSHA) requirements. A safety berm with a minimum height of 42" will be utilized around the upper perimeter of the excavation. This will also provide the additional benefit of controlling erosion. Mine blocks will be divided; these may be in the form of an active upper bench, an active lower bench, an unused materials storage area, an active restoration area and a restored area under monitoring.

Excavation equipment will be used to dig the raw material (sand) and load it into haul units for transport to the wet processing (wash) plant or dumped directly into a dump hopper and slurried to the wash-plant. If carried via haul unit, raw material will be placed into the dump hopper at the wash plant, where the sand will be washed and sized and conveyed to wet sand storage stockpiles.

The material from the washed sand stockpiles will be conveyed to a battery of dryers. Dried material will then be conveyed to an array of screeners. Here the material will be separated to produce the desired

products. Final products will be placed into a series of storage silos for loadout into delivery or customer trucks. All roadways for customer trucks will be paved to limit dust production.

Permit by Rule authorizations (PBR) issued pursuant to 30 Texas Administrative Code (TAC) 106, by the Texas Commission on Environmental Quality (TCEQ) will be utilized to authorize the construction and operation of these facilities. The facilities will meet the best available control technologies (dust and emission controls) and recordkeeping requirements of the PBRs.

2.4 Extraction Waste

Material that is too course or too fine for the desired product will be collected and returned to the mine for use in the restoration program. Since these materials are considered essentially inert and used to restore the land to a surface use they are not considered waste materials per TCEQ regulatory definition (30 TAC 330.A.145, emphasis added)

- (145) Solid waste Garbage, rubbish, refuse, sludge from a waste water treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations and from community and institutional activities. The term does not include:
- (A) solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows, or industrial discharges subject to regulation by permit issued under Texas Water Code, Chapter 26:
- (B) <u>soil</u>, <u>dirt</u>, <u>rock</u>, <u>sand</u>, <u>and other natural or man-made inert solid materials used to fill land if the</u> object of the fill is to make the land suitable for the construction of surface improvements.

2.5 Operational Water

Water and/or environmentally friendly dust suppressants will be utilized to control haul road emissions. Water in the pit from rainfall or groundwater seepage will be collected in a pit sump and pumped into the water processing/recycling system to make the best use of this resource.

Final washed sand materials will be dewatered and placed into large stockpiles based on product size. A closed loop water recycling system will be utilized. This system will employ the combination of a high rate thickener and possibly dewatering screens as well as belt or plate presses. Water will be reclaimed at each stage of the process and returned to the process.

Groundwater supplied from on-site wells is expected to be the primary source of water supply for the facility. These wells will be completed into the Dockum aquifer. There is not a local Groundwater Conservation District in Winkler County and the wells will be constructed in accordance with state well construction standards. Atlas 1 water usage from these wells is minimal; as a point of reference the annual water usage is approximately equivalent to the amount of water used in 10 Permian/Delaware frac jobs.

2.6 Stormwater and Erosion Control

Storm water discharges associated with the construction of the facility and infrastructure will be authorized under the Texas Pollutant Discharge Elimination System (TPDES) General Permit for Construction Activities (TXR150000). A Storm Water Pollution Prevention Plan (SWP3) will be prepared which specifies the Best Management Practices (BMPs) for the construction activities as well as the inspection and recordkeeping requirements.

A Notice of Intent (NOI) and associated fee will be submitted prior to the initiation of construction activities. At the conclusion of construction, a Notice of Termination (NOT) will be submitted and the facility will be converted to the TPDES Multi-Sector General Permit for Industrial Facilities. A NOI for coverage under the TPDES Multi-Sector General Permit for Industrial Facilities (TXR050000) will be submitted prior to filing the NOT for the TXR150000 permit coverage. A Storm Water Pollution Prevention Plan (SWP3) will be prepared for the operational facility which identifies the Best Management Practices (BMPs) for the facility as well as the inspection and recordkeeping requirements.

2.7 Equipment Maintenance

Equipment will be maintained on a regular schedule. Heavy equipment suppliers will be utilized for service of their equipment when possible. Liquids will be captured and properly stored for disposal. A company certified for disposal will be utilized for removal of those waste products such as oil, antifreeze, hydraulic fluid, etc.

2.8 Site Security and Fencing

The facility will be manned 24 hours a day. A perimeter service road will encompass the pit to allow for inspection of the above-mentioned safety berms. All site access limitations and check in requirements will meet or exceed those set forth by MSHA. If practical and warrantable, a temporary movable fence may be utilized in front of the active excavation face.

2.9 Operating Hours

Dependent on market conditions, the facility will operate on a 24-hour-per-day schedule seven days a week. There will be limited or partial shutdowns for severe weather and certain holidays.

3.0 RECLAMATION PLAN

The overall reclamation plan is to reclaim acreage within the subject area as the mining operation progresses over the upcoming decades. The goals of this reclamation plan are to restore the natural topography, specifically to benefit native wildlife and other resources, and to be the example and driver for responsible development of west Texas sand resources.

3.1 Reclamation Overview and Schedule

This reclamation plan describes how land to be used for mining will be reclaimed as the mining operation grows in order to restore natural topography and benefit native wildlife. Unused material from the plant will be hauled back to the mine and used for reclamation purposes. Material will be stockpiled until enough area is available for grading. When enough of an area and material is available, the piles will be leveled and contoured to a desired end use before planting and vegetating the area. The specific timing of this plan may be subject to particular seasons/times of the year where planting is optimal. The reclamation will continue for the full life of the project; this reclamation plan focuses on the first 20 years.

3.2 Affected Area

The following is a simplified plan created solely for the purpose of illustrating the amount of area anticipated to be affected over time; it in no way defines the exact location or strategy that is to be deployed in the mining process:

- Year 1: In 2018, the total acreage mined will be 10 acres, and the total acreage that will begin reclamation will be four acres (Attachment A, Figure 8).
- Year 2: In 2019, the total acreage mined will be 31 acres, and the total acreage that will be reclaimed will be 11 acres (Attachment A, Figure 9).
- Year 3: In 2020, the total acreage mined will be 72 acres, and the total acreage that will be reclaimed will be 26 acres (Attachment A, Figure 10).
- Year 8: In 2025, the total acreage mined will be 276 acres, and the total acreage that will be reclaimed will be 100 acres (Attachment A, Figure 11).
- Year 13: In 2030, the total acreage mined will be 481 acres, and the total acreage that will be reclaimed will be 173 acres (Attachment A, Figure 12).
- Year 18: In 2035, the total acreage mined will be 686 acres, and the total acreage that will be reclaimed will be 247 acres (Attachment A, Figure 13).

With the minimum anticipated total of 247 acres to be reclaimed out of the 686 acres to be mined, the 20-year net impact is expected to be 439 acres. Efforts to further increase and improve reclaim acreage will be ongoing throughout the life of the project. An additional 1,400 acres will be set aside as a strictly conservation and restoration area, where no mining development will take place.

3.3 Detailed Reclamation Plan

Goal

The goal of the Reclamation Plan is to create and enhance quarried and adjacent GLO land to sustainable habitat for the dunes sagebrush lizard (DSL) and other native resources.

Objectives

In order to achieve the goal of creating sustainable DSL habitat, the following have been identified as primary objectives:

- Develop an Adaptive Management Plan that improves and documents arid land ecological restoration techniques specific to DSL habitat;
- Provide connectivity between created and adjacent potential DSL habitat;
- Create reference sites in non-quarry set aside areas to research and test restoration methods, thereby improving lower quality habitat and providing replicable techniques for use in other operations;
- Utilize non-quarried materials to create DSL habitat;
- Establish a monitoring program whose data allows for the Adaptive Management Plan to be implemented proactively, prior to systemic reclamation failures; and
- Advance the scientific knowledge of the DSL and its habitat to benefit the species and aid in the development of operational planning for the industry.

Topography

As quarry and reclamation activities progress, the topography of the subject area will undergo a range of variation. As such, and as part of the Adaptive Management Plan, topographic mapping of the subject area will occur at pre-determined intervals to provide data to both the quarry operators and the reclamation practitioners.

Existing

According to the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles, *Notrees NW* and *Vesrue*, the elevation of the subject area ranges from 3,050 feet above mean sea level (AMSL) to 2,965 feet AMSL and slopes from northwest to southeast across the subject area (Attachment A, Figure 5; USGS 1970 and USGS 1971).

Post-Excavation

Quarry activities are anticipated to reach a conservative excavation depth averaging 80 feet; the base undulates very similar to the surface of the dunes and will be the base layer that reclamation will take place over therefore recreating the pre-existing topography. The angle of repose of the quarry walls are planned at a slope of one foot of rise in elevation for every one foot of horizontal run outwards from the quarry floor (1:1). Excavated material will be processed on-site and non-product material will be used as fill in the previously quarried areas to raise the bottom elevation of the reclamation areas. This reclamation plane is anticipated to be at approximately 40 feet below the original ground elevation.

Material reserved from the open dune complexes that meets the technical specifications of suitable DSL habitat will be used to create a dune complex on top of the reclamation plane. The dune complex will consist of individual dunes and troughs whose structure, composition, and spatial orientation replicates, to the maximum extent practicable, those of dune complexes known to be occupied by DSL and based on a study of these structures within dune complexes known to be occupied by DSL.

Following the completion of dune complex creation on top of the reclamation plane, the side slopes of the quarry will be modified to allow for the establishment of vegetation, free movement of wildlife, and access to the localized wind profile.

Adaptive Management

The Adaptive Management Plan will be driven by near continuous monitoring and the collection of data. To efficiently collect topographic data on the landscape scale, aerial drones will be regularly utilized to collect topographic data throughout quarrying and reclamation activities to identify the movement of sediment throughout the process. Identifying the source and cause of sediment losses from a given area and gains in another will allow the reclamation practitioners to identify and remedy the causes of these movements, as necessary, and develop strategies to prevent similar issues as the reclamation process proceeds.

Erosion

As the Kermit Sands are predominately an aeolian-driven system capable of transporting sediment over several miles, erosion control related to the Reclamation Plan will be viewed on a landscape scale. The development of the erosion control strategy will recognize that wind-blown sediment is responsible for the development and maintenance of the dune complexes that constitute DSL habitat and that balancing the sediment load entering the subject area with that exiting is necessary for the sustainability of DSL habitat within and downwind of the subject area. Constant monitoring will drive the adaptive

management system through a series of incremental alterations until autogenic processes can be resumed.

Adaptive Management

The utilization of aerial drones in conjunction with on-site personnel monitoring and permanent data collection apparatus will allow reclamation practitioners to build a profile of sediment movement throughout the site and the topographic and weather thresholds at which it occurs.

Sediment/Resource Flow

Sediment transport in this region is predominately wind-driven and, within a given landscape, has the ability to move nutrients and seed source into or out of a given site. Wind-born sediment can give a sediment or nutrient sink the ability to initiate and sustain vegetative growth. The removal of excessive amounts of sediment and nutrients from the subject area via wind can hinder reclamation efforts and potentially damage the adjacent landscape. Conversely, excess sediment and undesired seed source entering the subject area can also hinder reclamation efforts. As part of the Adaptive Management Plan, sediment monitoring stations will record the amount and type of sediment entering and exiting the subject area. This information will better allow restoration practitioners the ability to adapt the reclamation plan to potential impacts related to this sediment and resource flow.

Vegetation

The vegetated portions of the subject area are predominately within the Sand Hills ecological site within Major Land Resource Area (MLRA) Southern High Plains, Southwestern Part (NRCS 2017). According to the Natural Resource Conservation Service (NRCS), vegetation composition and structure varies widely across this ecological site and is based primarily on the age of a given soil deposit (2010), where older deposits support a more stable and diverse plant community. The youngest deposits are those within active dunes that have not developed the ability to establish vegetation; however, the NRCS (2010) has stated that areas "that were bare dunes 50 to 60 years ago" are now able to support vegetation. The target plant community for reclamation and enhancement efforts will include vegetation structure and composition suitable as DSL habitat within the Historic Climax Plant Community (HCPC).

Historic Climax Plant Community

The NRCS (2010) assumes that the HCPC, although varying widely throughout the ecological site, is considered to be a Grassland State that transitions between a Tallgrass/Midgrass/Shrub Community and a Shortgrass/Shrub Community, dependent upon the frequency, intensity, and duration of disturbance. The structural composition of this Tallgrass/Midgrass/Shrub Community, in decreasing order of percent estimated total production, is tallgrasses, midgrasses, shinnery oak, sand sagebrush and perennial forbs, and shortgrasses. The percent bare ground of dunes within the HCPC is estimated to have been 35 to 40 percent (NRCS 2010). Under moderate increases in disturbance, the HCPC retrogresses to the point that percent production of tall and midgrasses decreases while the percent production of shortgrasses and shrubs increases. This retrogression is reversible by decreasing disturbances and implementing an adaptive brush management plan (NRCS 2010).

With increasing disturbances, the Grassland State crosses a threshold into a Shrubland State, where shinnery oak becomes the dominant species and can have a percent production in excess of 70 percent (NRCS 2010). To return an area from the Shrubland State to the HCPC Grassland State requires extensive management inputs.

Existing

Determining where reclamation efforts will begin requires the determination of current vegetative state of the subject area. Desktop review of mapped information is a useful tool to: 1) efficiently identify general vegetation communities on a landscape scale; 2) identify what potential impacts the adjacent landscape may have on the subject area during reclamation efforts; and 3) determine the effects of reclamation activities on the adjacent landscapes.

Following the desktop review, baseline vegetation composition will be recorded and mapped through the establishment of permanent survey transects. These transects will be utilized throughout the reclamation process to document progress and identify successional trajectory.

A literature review of known necessary DSL habitat components in combination with the data from the transect surveys will be utilized to more efficiently direct reclamation efforts.

Establishment

The NRCS (2010) has stated that areas "that were bare dunes 50 to 60 years ago" are now able to support vegetation. This is most likely the result of various factors including, but not limited to: dune structure, available seed source, soil nutrients, and the timing and quantity of precipitation.

Soil Fertility

The structure of individual dunes and spatial orientation of dune complexes will be built to replicate existing dunes and complexes known to be occupied by DSL, to the maximum extent practicable. As these dunes will be built from soil sourced from open dunes known to not support vegetation yet, soil fertility will be tested to determine the necessary amendments. Soil amendments are anticipated to be predominately sourced from on-site materials including generated mulch, wood chips, and brush. These amendments will provide the added benefits of providing a long-term source of organic material, erosion control, and protecting new vegetative growth from utilization as browse for wildlife until root systems are sufficiently established.

Commercially sourced soil amendments will be utilized if necessary to assist the initiation of autogenic nutrient cycling.

Micro-Catchments (Fertile Island)

Even though the reclaimed dunes and dune complexes will be constructed to replicate dune complexes known to be utilized by DSL, restoration techniques implemented on the surface of these created dunes will attempt to create fertile islands. These fertile islands will create resource sinks that catch and retain wind-blown nutrients sourced from off-site areas, furthering the initiation of autogenic sustainability.

Historic Climax Plant Community

Herbaceous vegetation from the HCPC remaining as a seed source on the landscape near the subject area is limited and fragmented. Therefore, herbaceous vegetation to be planted will most likely be commercially sourced. The species to be planted will be derived from the HCPC species as a framework. Shinnery oak is abundant on the adjacent landscape and can be successfully transplanted and propagated in-situ. As such, shinnery oak to be planted will be primarily sourced from available on-site materials.

Planting

Herbaceous vegetation plantings will initially occur via no-till drill, broadcast seeding, or a combination of the two. Prior to planting, a weed-free seed bed will be prepared. As part of the planting process,

sufficient seed-to-soil contact will be completed and the seeds will be protected from erosion and predation to the maximum extent practicable. Shinnery oak will be transplanted and similarly protected from erosion and predation.

Irrigation

Irrigation will be provided via available on-site water as necessary until planted root systems can sustainably derive enough water from available precipitation.

Adaptive Management

In order to determine the successional trajectory of vegetative growth, the transects used to establish the baseline vegetative community will be utilized as part of the Adaptive Management Plan to monitor vegetative growth. During the initial growing seasons, transects will be monitored frequently and resources input as necessary to promote plant growth until sustainable autogenic landscape restoration has been initiated. During this time, additional vegetation plantings may occur if deemed necessary and undesirable vegetation removed. Following this, monitoring frequency will decrease but not be eliminated from the Adaptive Management Plan.

Wildlife Habitat

Quarry operations within GLO land is planned to occur predominately in areas categorized as open dunes. Open dunes do not contain the necessary vegetation to provide native wildlife with feeding or sheltering habitat, and as such, are not likely to be regularly utilized by native wildlife. Therefore, quarry activities are not anticipated to affect the DSL and have little to no impact on other native wildlife.

DSL do not regularly utilize open dune complexes, but instead are known to occur in dune complexes categorized as 'Oak-Sand Hummocks'. As such, some sand from the open dunes will be withheld from production and utilized to replace quarried areas with Oak-Sand Hummocks as quarry operations progress. These dunes will be constructed to replicate the grain size and vegetation community of those dune complexes where DSL are known to occur.

The reclaimed dunes are intended to be habitable by DSL and other native wildlife species. As such, the quarry side slopes will be modified and vegetated to provide sustainable connectivity zones between the reclaimed dune complexes and adjacent non-quarried areas.

Beneficial Uses

As the best available science related to the DSL is limited and variable, the reclamation process will provide a comprehensive review of what science is available, identify gaps in the research, and attempt to fill in the knowledge gaps through additional field data collection, constant monitoring, and adaptive management.

Publications

Data collected throughout the restoration process that provides the potential to fill knowledge gaps and improve the best available science will be consolidated and presented for peer-review so that the scientific and restoration practitioner communities may benefit from the knowledge acquired during reclamation efforts.

Future research

Reclamation efforts on this spatial- and temporal scale offer an opportunity for future research as a field laboratory to university researchers and students studying topics related to arid land ecosystems.

Net Conservation Benefit

The Open Dune areas to be quarried do not support vegetation in quantities necessary to sustain habitation by native wildlife, including the DSL. Created dune complexes will be constructed to replicate the Oak-Sand Hummocks utilized by the DSL and other native wildlife. This transition from an uninhabitable area to an extension of the surrounding ecosystem is anticipated to result in a net conservation benefit to the DSL and native wildlife.

3.4 Post-Extraction Public Safety

The active and final excavations will comply with the requirements of the Texas Pit and Quarry Safety Act (43 TAC 21) as administered by the Texas Department of Transportation.

3.5 Estimate of Reclamation Costs

Because this reclamation plan is being designed as an adaptive management plan, reclamation costs and success of the different techniques used will be reviewed and determined on an annual basis.

Costs which will be considered include, but are not limited to:

- Structure demolition and disposal
 - Removal/demolition of mining-related buildings, facilities, and structures that are not approved for retention as part of the post mining land use, such as: crushers, storage bunkers, silos, conveyor systems, fences, and other similar structures
 - O Disposal costs: transportation of demolition debris, landfill disposal fees, and other costs associated with the disposal of debris in an approved solid waste disposal facility
- Earthmoving
 - Backfilling and rough grading
 - Spoil ridge reduction
 - o Highwall elimination
 - o Final pit elimination
 - Road reclamation
 - Final grading
 - Topsoil replacement
- Revegetation
 - o Initial revegetation: soil sampling, application of soil amendments, seeding, planting
 - o Reseeding and replanting expenses associated with vegetative failures
- Other direct reclamation costs
 - o Pumping and treating impounded waters
 - Plugging auger holes
 - Disposing of toxic, hazardous, and other solid waste in accordance with state and federal laws and local ordinances
 - o Maintaining roads during reclamation (OSM 2000)

3.6 Financial Assurances

The most appropriate financial assurance mechanism will be chosen based on the reclamation plan and final conservation agreement.

3.7 Statement of Responsibility

Atlas Sand Company, LLC intends to be the leader in sustainable frac sand supply in the Permian Basin. Consistent with the other companies managed by Atlas Sand principals and which are active in other businesses in the Permian (oil and gas, real estate, water), we hold ourselves and our companies to the highest ethical and social standards. Our leadership is from the Permian (Midland) and we have a very active presence in businesses throughout the areas where Atlas Sand is mining. Atlas Sand has longstanding relationships with its customers—service providers as well as exploration and production companies—who are leaders in our industry and vital to the health of the Texas economy. While Atlas Sand will adhere, and be accountable to all local, state and federal rules and laws, there is no higher standard than that to which management holds itself in the community. We have a longstanding track record of stewardship of resources, contributions to local communities and job creation in Texas, and Atlas Sand intends to be the standard bearer for sand mining in our state.

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ATTACHMENT A FIGURES

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ATTACHMENT B CULTURAL RESOURCES DESKTOP REVIEW



April 12, 2018

Mr. Edward Koch Assistant Regional Director, Ecological Services U.S. Fish and Wildlife Service, Southwest Region P.O. Box 1306 Albuquerque, NM 87103-1306

RE: Support of Atlas Sand's Mining Activities and Conservation Efforts in Ward and Winkler Counties, Texas

Dear Mr. Koch,

Last December, our team met with you to discuss our sand mining operation plans in Texas and how these are being designed to avoid impacting the Dunes Sagebrush Lizard (DSL) and its habitat as well as to provide voluntary, contemporaneous conservation actions for the species. More recently, you received a letter from George P. Bush, Commissioner of the Texas General Land Office, asking for your help in working with us to ensure prudent development on the Permanent School Fund lands leased to Atlas Sand. Given your mission to encourage the preservation of species, we are reaching out to you today to ask for your team's support and recognition of our approach to help ensure our mining operations not only benefit the state and local economies, but the DSL as well.

As you are aware, the current Texas Conservation Plan (TCP) does not provide a path for sand mining interests, such as Atlas, to participate if they are identified within the polygons of the "Hibbitts Map" as having the likelihood of supporting the presence of DSL. Thus far, based on this inflexible application of maps not intended for such a purpose, Atlas (and other miners), which have demonstrated through multiple independently performed site-specific habitat assessments that the current mining area is unsuitable habitat, are still not allowed to participate in the plan. (See attached *Dunes Sagebrush Lizard Habitat Assessment for the Kermit Atlas 1 Site*). This has been especially detrimental to Atlas and these other miners since the Industry that we serve sees participation in the TCP as a litmus test of a sand mining company's commitment to the conservation of the DSL. Although the Texas Comptroller has proposed replacing the existing TCP with a new conservation plan that makes significant and likely laudable changes, these apparently [is this not the case anymore] still do not include a path for sand mining companies to provide site-specific habitat assessments and surveys to provide enhanced information beyond the yet to be released new map model.



Until this path is provided, companies such as Atlas will be unable to work through the TCP to implement its conservation measures, although we remain involved in and supportive of that general effort.

In the meantime, we believe the responsible course for both our investors and the DSL is to assist the various stakeholders by moving forward with our effort to develop the tools necessary to better understand and protect the DSL, such that operations in the DSL's general range remain compatible with conservation of the species. Attached is a DSL Research and Conservation Program developed by the environmental specialists at SWCA. The team is led by Amanda Aurora, C.W.B. (Regulatory Specialist and Senior Scientist), whom you have met on a couple of occasions, Nicole Smolensky, Ph.D. (Herpetologist and DSL Specialist), Shelby Frizzell (DSL Field Specialist), and other respected DSL experts. They will be working on our properties to develop industry best practices, habitat assessment protocols, and presence and likely absence survey methods that will be implemented and refined over the coming years. We are actively and successfully collaborating with our fellow west Texas miners to adopt and implement this plan together; as well as working in general with oil and gas interests, state and federal regulatory agencies and research facilities throughout this process. Our goal is to use the most advanced scientific findings to shape these protocols into usable conservation tools that can be employed by all development industries within potential DSL habitat

Given that the Comptroller is not addressing sand miners such as Atlas, we would like your active participation in and support for this project. Although the DSL is not currently under federal protection, Atlas has already invested and will continue to invest a substantial amount of time, money, land, and other resources to better protect the DSL, and therefore would appreciate your endorsement of these conservation efforts. As we proceed with our mining activities we continue to: (1) avoid suitable DSL habitat; (2) create a small mining footprint; (3) slowly move across the landscape allowing for potential DSL habitat restoration projects as a part of the reclamation process; (4) include substantial DSL habitat set asides; and (5) make investments in science and conservation research. Because we are currently unable to participate in the TCP, the Service's support of our plans relative to the DSL and its ultimate acknowledgement that we are preceding in a prudent and conservation-minded manner will also be helpful in continuing to encourage others to join our effort.

It is our hope that we can work together to develop the necessary tools to ensure the DSL continues to have a home in West Texas. We welcome any questions you may have and/or comments on our DSL conservation programs.



I look forward to hearing from you.

Sincerely,

Ben M. "Bud" Brigham

Chairman

Cc:

Chuck Ardizzone

George P. Bush

Attachments:

• Dunes Sagebrush Lizard Habitat Assessment for the Kermit Atlas 1 Site

SWCA DSL Research Program



Protocol for Performing Site-specific Habitat Assessments for the Dunes Sagebrush Lizard

Version 2; May 3, 2018

Introduction

This document defines a protocol for performing site-specific habitat assessments for the dunes sagebrush lizard (*Sceloporus arenicolus*; DSL) ("DSL Habitat Assessment Protocol"). The DSL Habitat Assessment Protocol is intended to standardize the identification, characterization, and delineation of habitats that may be used by the DSL for breeding, feeding, sheltering, or dispersal. The results of such assessments are intended to help landowners and project proponents make decisions regarding the potential need for regulatory assurances under the Endangered Species Act, if the DSL becomes listed as threatened or endangered, and guide the application of conservation measures for the DSL on their lands. The application of the DSL Habitat Assessment Survey Protocol is voluntary.

DSL Habitat Characteristics

The DSL is endemic to the Mescalero-Monahans shinnery dune systems in New Mexico and Texas (Degenhardt and Jones 1972). The Mescalero-Monahans shinnery dune system is composed of wind-driven sands and shrub-scrub vegetation frequently dominated by dwarfed shinnery oak (*Quercus havardii*) (Peterson and Boyd 1998; Griffith et al. 2007). The sand dunes are loose hills of sand formed by wind and contain hollowed-out depressions (called "blowouts") formed by the removal of sand by wind. The dunes are stabilized by deep-rooted vegetation like shinnery oak. Dunes, their blowouts, and the vegetation that encircle them form a close mosaic of microhabitats.

A series of these abutting microhabitat features is commonly referred to as a "dune complex," which are patchily distributed in a matrix of flat areas. These flat areas may be dominated by shinnery oak, other woody scrub-shrub vegetation (such as honey mesquite [*Prosopis glandulosa*]), or grasses and other herbaceous plants. At the landscape scale, multiple nearby dune complexes may occur as a fragmented "chain" of dune complexes across the landscape. Thus, the Mescalero-Monahans shinnery dune system is heterogeneous at multiple scales and organized in a hierarchy of landforms (Ryberg et al. 2014).

The body of best available information regarding the distribution of the DSL and its habitat preferences, which spans decades of research and study, indicates a tight association between DSL and areas that contain a close mosaic of these microhabitat features (Sena 1985; Degenhardt et al. 1996; Fitzgerald et al. 1997; Fitzgerald et al. 2005; Fitzgerald and Smolensky 2011; Leavitt and Fitzgerald 2013; Hibbitts et al. 2013; Ryberg et al. 2014). DSL have a strong association with blowouts within this matrix, with positive correlations between local DSL population size and blowout size, slope, and shape (Fitzgerald et al. 1997; Smolensky and Fitzgerald 2011; Ryberg et al. 2013). Shinnery oak is the dominant plant associated with DSL presence, and in areas where grasses and shinnery oak co-occur, DSL select shinnery oak over grasses (Degenhardt and Jones 1972; Fitzgerald et al. 1997; Hibbitts et al. 2013).



According to Fitzgerald et al. (1997), DSL is not found at sites lacking shinnery oak dune habitat, and DSL encounters are negatively associated with areas containing extensive grass or mesquite cover (Fitzgerald et al. 2011; TAMU 2016a; TAMU 2016b). Sand texture is also an important microhabitat feature, with DSL presence and DSL nest sites more often associated with moderately coarse sand (i.e., sand grains between 0.25 and 0.35 mm in diameter) (Fitzgerald et al. 1997; Ryberg et al. 2012). Preliminary studies of sand grain size and DSL occurrence hypothesized that subsurface breathing might be inhibited in fine grain sand or that areas of the fine grain sand become too compact to readily bury into (Ryberg et al. 2014). Shallow blowouts or blowouts with extensive soil compaction, dense grass, or extensive leaf litter are also less likely to be used by DSL (Hibbitts et al. 2013).

While suitable habitat for an individual DSL occurs primarily at the scale of a single shinnery oak dune blowout, neighborhoods of DSLs use the interconnected dunes in a dune complex. Extensive chains of shinnery oak dune blowout complexes appear to be important for population persistence (Chan et al. 2009; Leavitt and Fitzgerald 2013; Ryberg et al. 2015; Ryberg et al. 2013). Isolated, shallow, small shinnery oak dune blowouts or small shinnery oak dune blowout complexes are less likely to be used by DSL or sustain DSL populations (Fitzgerald et al. 1997; Smolensky and Fitzgerald 2011). Fitzgerald et al. (2011) noted disassociations between DSL detections and areas where mesquite is relatively common.

Well pads and caliche or paved roads appear to be largely avoided by DSL. Previous research has documented a decline in DSL encounters when oil well densities reach 13.64 wells per square mile, but populations may persist with this level of development if suitable habitat is still present (Sias and Snell 1998; Smolensky and Fitzgerald 2011). The reasons for such avoidance are unknown but may be related to the characteristics of the soil such as coarseness or soil compaction, the absence of vegetation needed for thermoregulation and predator avoidance, or the inability to quickly bury under the surface (Hibbitts et al. 2013; Hibbitts et al. 2017; Leavitt 2012; Ryberg and Fitzgerald 2014). Over time, populations of DSL and other dune dwelling lizard species (e.g., lesser earless lizard [Holbrookia macaulata]) appear to decline in heavily fragmented habitats, as suggested from a variety of studies detecting reduced recruitment, lower diffusion rates (i.e., population spread), reduced detections and capture rates, and changes in lizard species composition in areas with extensive oil and gas development (Leavitt and Fitzgerald 2013; Ryberg et al. 2013; Smolensky and Fitzgerald 2011; TAMU 2016a; Walkup et al. 2017).

To date, research has consistently indicated that DSL appear to prefer large areas of deep (i.e., > 10 feet deep), steep-sided (i.e., generally 30° to 65° slope) blowouts with sparse vegetation inside the blowout, where the blowout is surrounded by shinnery oak, and the sand comprising the dune being neither too loose nor too compact and of moderately coarse texture (Fitzgerald et al. 1997; Fitzgerald et al. 2005; Hill and Fitzgerald 2007; Ryberg et al. 2012; Ryberg et al. 2013). Research also indicates that DSL are unlikely to be found in dune systems that lack shinnery oak, that are heavily vegetated by grasses or mesquite, or a combination thereof (Fitzgerald et al. 1997; Fitzgerald et al. 2011; Hibbitts et al. 2013; Ryberg et al. 2014).

Within Texas, the known range of this species is limited to the parts of Andrews, Gaines, Crane, Winkler, and Ward Counties that occur in the Mescalero-Monahans shinnery dune system (Fitzgerald et al. 2011).



DSL Habitat Assessment Protocol

- Applicability Application of the DSL Habitat Assessment Protocol may be warranted for sites located within the known range of the DSL (TAMU 2016a) or located within areas of potential habitat for the DSL as suggested by DSL Habitat models or other similar sources (e.g., cite to Texas State University model, when available). The size and configuration of Study Areas for the DSL Habitat Assessment Protocol are at the discretion of the landowner/project proponent, but may only include areas for which site access by a Qualified Habitat Assessor is available.
- Qualified Habitat Assessor—The DSL Habitat Assessment Protocol should be performed by or under the direct, in-field supervision of a "Qualified Habitat Assessor," who demonstrates the following qualifications and experience:
 - Have demonstrable knowledge and field training in herpetology and the identification of herpetofauna;
 - Have at least 80 hours of field experience characterizing and delineating vegetation communities, land forms, or other natural resources within the range of the DSL; and
 - Have observed wild DSL in the field in Texas or New Mexico.
- **Time of Year**—The DSL Habitat Assessment Protocol may be applied to a Study Area at any time of year.

Initial Desktop Delineation—

- Using a combination of readily available data sources, prepare an initial desktop delineation of relatively "Homogenous Habitat Units" (HHUs) within the Study Area and outside of the Study Area to a distance of 350 meters.
- O HHUs are areas that exhibit more or less consistent combinations of land form, vegetation, and land use when delineated at a scale of approximately 1" = 200m. Each HHU should be categorized by the combination of resources present. Typical combinations within the range of the DSL include, but are not limited to: shinnery oak dune/blowout complexes containing linear, parabolic, or circular blowouts; non-shinnery oak shrub-scrub dunes; grassy dunes; unvegetated dunes; vegetated flats (shinnery oak dominant, other scrub-shrub dominant, or herbaceous dominant); oil and gas fields; transportation or utility line rights-of-way; mine sites; and others as may be applicable to the Study Area.
- O Data sources that may assist with this desktop delineation and that should be reviewed as part of the desktop delineation include, but are not be limited to: current and historic aerial imagery, topographic maps, vegetation mapping (e.g., Texas Ecological Mapping System, National Land Cover Dataset), and landscape-scale models of potential DSL habitat. Recognizing the heterogenous nature of habitats in the range of the DSL, it is not expected that a HHU would be smaller than approximately 10 acres (i.e., some variation within these units is anticipated).

Habitat Assessment Points—

 Create a set of "Habitat Assessment Points" spaced on a 350-m grid within the Study Area. The 350 m spacing reflects the longest documented multi-day displacement of a DSL (TAMU 2016a) and approximates the scale of habitat use by the DSL.



- Create additional Habitat Assessment Points as needed to include at least three such points within each HHU. The additional Habitat Assessment Points should be evenly distributed within the HHU.
- For each Habitat Assessment Points, provide a Point ID and the spatial coordinates of the point location (with the coordinate system and datum identified).
- **Desktop Macrohabitat Data Collection**—Extract or generate the following macrohabitat information for each Habitat Assessment Points from readily available spatial data and GIS software for the area within 100 m of each point:
 - <u>Dominant Land Form</u>: flat sand sheet, rolling sand sheet, linear dunes, parabolic dunes, or other as may be applicable
 - <u>Dominant Non-blowout Vegetation Community</u>: unvegetated, herbaceous, mesquite scrub, shinnery oak scrub, or other as may be applicable
 - <u>Percent Blowout</u>: % of 100 m circle around point represented by open or sparsely vegetated blowout features, digitized from most recent aerial imagery; an indicator of dune/blowout complex extent or isolation
 - Percent Disturbed Land: % of 100 m circle around point represented by visually disturbed land (i.e., paved or caliche surfaces, transportation or utility rights-of-way, structures, mine sites, etc...)
 - <u>DSL Habitat Model Results</u>: classification of land within the 100 m circle by available landscape-scale DSL habitat models (e.g., cite to Texas State University model, when available)
- On-site Microhabitat Field Data Collection In the field at each Habitat Assessment Point, visually estimate the typical or dominant condition of the following features for the area within 30 m of the point:
 - Date of Visit and Assessor Name
 - Photographs One photograph in each cardinal direction, with each photograph labeled with the Point ID, Point Location, Date of Visit, and Cardinal Direction.
 - Plant Community Composition: name and approximate absolute % cover for each visually dominant or co-dominant plant species; absolute % cover visually estimated in increments of 20% (i.e., 0-20%, 20-40%, 40-60%, 60-80%, or 80-100% of the area of the 30 m radius circle around the point; % cover for all species may be greater than 100% due to overlapping cover)
 - <u>% Bare Ground</u>: visually estimated in increments of 20% (i.e., 0-20%, 20-40%, 40-60%, 60-80%, or 80-100% of the area of the 30 m radius circle around the point)
 - <u>Dominant Dune Height/Blowout Depth:</u> visually estimated in increments of 0-2 feet, 2-10 feet, >10 feet
 - <u>Dominant Dune/Blowout Slope</u>: visually estimated in increments of 0-20° (Gradual), 20-40° (Moderate), 40-65° (Steep), or >65° (Extremely Steep Hard Edge)
 - Blowout Shape: linear, parabolic, or circular or bowl-shaped
 - Blowout % Vegetation Cover: visually estimated for all plant species combined in increments of 20% (i.e., 0-20%, 20-40%, 40-60%, 60-80%, or 80-100% of the area of the 30 m radius circle around the point)
 - Soil Compaction: visually estimated in relative categories as



- Low Compaction Loose soil, little vegetation for soil deposition and stabilization, sink when walking across soil, no shovel restriction when digging.
- Moderate Compaction Soil remains in place, vegetation provides stability but soil may shift when disturbed or stepped on, footsteps supported when walking across soil, slight resistance when digging.
- High Compaction Soil remains in place, vegetation provides stability, little no movement of soil when walking across soil, shovel restriction within 6 inches of surface when digging.
- Sand Grain Size: As stated in Ryberg and Fitzgerald (2014), hypotheses and data on the correlation and causal mechanisms between sand grain size and DSL associations are still nascent requiring further investigations. To-date only one study (Fitzgerald et al. 1997) looked at 8 sites in New Mexico on the relationship between sand grain size and DSL presence. Given the field and laboratory effort needed for accurate sand grain size analysis, authors believe it is better to await further academic studies prior to using sand grain size as classification of DSL habitat.
- On-site Refinement of Delineation Boundaries In the field, ground-truth the boundaries of the HHUs. Refine the initial desktop delineation, as appropriate.
- Known DSL Distribution To help inform assessments of relatively likelihood of occupancy of
 any potential DSL habitat within the Study Area, identify publicly available records of
 documented DSL occurrence in the vicinity (i.e., within 2 km) of the Study Area and evaluate the
 reliability of the DSL occurrence record (i.e., some DSL records are historic and associated
 location information may be imprecise or ambiguous).
- DSL Habitat Delineation Group the Homogenous Habitat Units into the appropriate DSL
 Habitat Category (Table 1). Categorization should be based on a predominance of consistency
 with the characters for a particular habitat category (i.e., the criteria in Table 1 should guide
 categorization based on professional judgement of the Qualified Habitat Assessor). However, a
 HHU need not meet all of the criteria specified in Table 1 for a particular category to qualify for
 the category. The Qualified Habitat Assessor should provide a description of the rationale used
 for HHU classification into DSL habitat categories.



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DSL Habitat Category	Macrohabitat Characteristics				Microhabitat Characteristics					
	Dominant Land Form	Dominant Vegetation	Dune/Blowout Complex	% Disturbed	Dominant Dune/Blowout	Dominant Dune/Blowout	Blowout % Vegetation	Soil Compaction	Sand Grain Size	Proximity of Known DSL
,		Community		Land	Size	Slopes			(if available)	Records
Preferred Habitat	Parabolic or Circular Sand Dunes	Shinnery Oak	Extensive area and connectivity (80-100% blowout area)	<3	>10 feet	Steep (40-65° slopes)	No to sparse herbaceous cover (0- 40% cover)	Moderate	Moderate (between 0.25 and 0.35 mm diameter)	DSL may be documented within Homogenous Habitat Unit
Suitable Habitat	Parabolic, Circular, or Linear Sand Dunes	Shinnery Oak	Moderate area or connectivity (40-80% blowout area)	<10	>10 feet	Steep (40-65° slopes)	Sparse to moderate herbaceous cover (20- 60%)	Moderate	Moderate (between 0.25 and 0.35 mm diameter)	DSL may be documented within Homogenous Habitat Unit
Marginal Habitat	Parabolic, Circular, or Linear Sand Dunes or Rolling or Flat	Shinnery Oak or Mesquite Shrub	Limited area and connectivity (0- 40% blowout area) or blowouts are individual and isolated	>15	2-10 feet	Moderate to Gradual (0-40° slopes)	Moderate to dense herbaceous cover (60- 100%)	Low or High	Moderate to Coarse (>0.35 mm diameter)	DSL may be documented within 2 km
Unsuitable Habitat	Linear Sand Dunes or Rolling or Flat	Mesquite Shrub, Herbaceous, or Other	Blowouts lacking	>15	Blowouts lacking	Blowouts lacking	Not applicable blowouts lacking in	Low or High	Fine (<0.25 mm diameter)	No DSL documented in Homogenous Habitat Unit



- Reporting—Habitat assessment reports should document the implementation of the DSL
 Habitat Assessment Protocol as applied to a particular Study Area, information about the field
 mobilization, desktop and field findings, the classification of HHUs into DSL habitat categories,
 and the rationale for the conclusions. Recommended content includes:
 - Location and size of the Study Area
 - A figure depicting the initial delineation of HHUs, and the locations of Habitat Assessment Points
 - Description of the extent of previous disturbances within the Study Area, with figures as appropriate
 - Description and locations of previously recorded DSL observations within 2 km of the Study Area, with figures as appropriate
 - Discussion of the macrohabitat desktop findings for Habitat Assessment Points, including figures and tables as appropriate
 - Description of the field investigation efforts and discussion of the microhabitat data collected in the field, with figures and tables as appropriate
 - An appendix with the field data forms for each Habitat Assessment Point, including the photographs
 - Revised delineation of HHUs based on field ground-truthing
 - Discussion of the classification of HHUs into DSL habitat categories, including figures and tables, as appropriate
 - Discussion of the likelihood of DSL occurrence within the Study Area
 - The identity of any survey personnel, including Qualified Habitat Assessors and individuals directly supervised by Qualified DSL Biologists. The report should also demonstrate the qualifications and experience of the Qualified Habitat Assessors.
- **Habitat Assessment Expiration** Habitat assessment reports based on this DSL Habitat Assessment Protocol expire 10 years after the report date or if conditions within the Study Area change substantially from those evaluated in the report.



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To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]

From: Margaret Byfield

Sent: 2018-06-28T15:18:58-04:00

Importance: Normal

Subject: [EXTERNAL] Yesterday's meeting **Received:** 2018-06-28T15:19:16-04:00

Hi Aurelia,

Thanks so much for all your help pulling together yesterday's meeting. We felt it was a very good discussion about the Dunes Sagebrush Lizard and hope that your team has the information they need to better understand the sand mining process and the net benefit it can have on the DSL. I was very pleased with the group you brought together from DOI, USFWS and the Regional Office.

I have heard back from the Chelan County Commissioner on the North Cascades Grizzly Bear restoration plan and he has the following dates available: July 18, 19 or 20th, or the next week which would be the 25th, 26th or 27th. Would any of these dates work on your end? Since the North Cascades plan involves both the USFWS and the National Park Service, I think it would be good to have Mr. Sheehan in the meeting as well as the Acting Director of NPS. Would also appreciate having Todd Wynn or Tim Williams. There may be others that you think would be good to have there as well.

Once again, I appreciate all your help on these issues.

Warm regards,

Margaret Byfield

(b) (6) cell

To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]

Cc: Mennel, John (US - Arlington)[imennel@deloitte.com]; Gracie, Matthew (US -

McLean)[magracie@deloitte.com]

From: Cassidy, John Kenneth (US - Arlington)

Sent: 2018-06-29T05:27:58-04:00

Importance: Normal

Subject: Re: [EXTERNAL] time on Monday? // Regulatory analysis -- ESA public comments

Received: 2018-06-29T05:28:06-04:00

Hi Aurelia - thanks for the note. Unfortunately July 2nd won't work for us as we have a few team members traveling.

Can we take a look at the week of July 9th

Regards John

Sent from my iPhone

On Jun 27, 2018, at 2:37 PM, Skipwith, Aurelia aurelia skipwith@ios.doi.gov> wrote:

John,

I'm available 2 or 3pm on July 2nd. Thanks.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Wed, Jun 20, 2018 at 11:04 AM, Mennel, John (US - Arlington)

<imennel@deloitte.com> wrote:

Hi Aurelia,

It was good to see you just now. I wanted to check with you on a good time to meet so we can show you the initial analysis we have done in the reg reform tool on ESA. Matt has an interactive dashboard that will show the output of the public comment sample we analyzed. Could we arrange some time with you and John on Monday? We are pretty flexible that day.

Best,	
John	

John Mennel

Managing Director | Strategy

Deloitte Consulting LLP

1919 North Lynn St, Arlington, Virginia 22209

Tel/Direct: +1 571 814 6054 | Mobile: +1 214 208 7208

jmennel@deloitte.com | www.deloitte.com

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v.E.1

To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]

From: Gracie, Matthew (US - McLean) **Sent:** 2018-06-29T15:46:32-04:00

Importance: Normal

Subject: Automatic reply: Re: [EXTERNAL] time on Monday? // Regulatory analysis -- ESA public

comments

Received: 2018-06-29T15:47:04-04:00

I am vacation thru July 8th and will respond as soon as I can.

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v.E.1

To: aurelia_skipwith@ios.doi.gov[aurelia_skipwith@ios.doi.gov]

From: Rick Fletcher

Sent: 2018-07-02T08:18:37-04:00

Importance: Normal

Subject: [EXTERNAL] Last Wednesday Meeting **Received:** 2018-07-02T08:18:43-04:00

Good morning Aurelia,

I just wanted to reach out and let you know how grateful we at Atlas are to have had the opportunity to tell our story to you and others at the Department of Interior. After our meeting last Wednesday, we all took great confidence in the reception we received from the Department. We remain convinced that partnering with the DOI to help promote and continue implementation of conservation for the Dunes Sagebrush Lizard is in the best interest of all those involved. Again, thank you for giving us the time to speak to you.

On a personal note, I sit on the Executive Board of Mountain States Legal Foundation. After returning to Austin last week, I was visiting with my dear friend, Perry Pendley, who, as you know, is the President of MSLF. After telling Perry of my trip to DC, he quickly informed me that he knew you and was very fond of your work. I only wish I had known of your connection with Perry before arriving in your offices. I'm certain we could have had a very good conversation about an organization and work that is very dear to my heart. Perry asked me to tell you hello! :-)!

If there is any additional information or assistance that we can provide you as the Department begins to address the issues surrounding the Dunes Sagebrush Lizard, please give me the opportunity.

My very best, Rick

Rick Fletcher General Counsel



5914 W. Courtyard Drive, Suite 200 Austin, TX 78730

Office: 512-220-1200 Cell: (432) 559-9558 **To:** Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]

Cc: Mennel, John (US - Arlington)[imennel@deloitte.com]; Gracie, Matthew (US -

McLean)[magracie@deloitte.com]

From: Cassidy, John Kenneth (US - Arlington)

Sent: 2018-07-02T15:02:26-04:00

Importance: Normal

Subject: RE: Re: [EXTERNAL] time on Monday? // Regulatory analysis -- ESA public comments

Received: 2018-07-02T15:02:39-04:00

Hi Aurelia confirming that July 11th at 1PM works. From our team it will be Matt and Brian K, as John and I are unfortunately booked up on other meetings.

Regards, John

From: Skipwith, Aurelia <aurelia_skipwith@ios.doi.gov>

Sent: Friday, June 29, 2018 3:45 PM

To: Cassidy, John Kenneth (US - Arlington) < jocassidy@deloitte.com>

Cc: Mennel, John (US - Arlington) < jmennel@deloitte.com>; Gracie, Matthew (US - McLean)

<magracie@deloitte.com>

Subject: [EXT] Re: Re: [EXTERNAL] time on Monday? // Regulatory analysis -- ESA public comments

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Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208-5837

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Can we take a look at the week of July 9th

Regards

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Sent from my iPhone

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Best, John

John Mennel

Managing Director | Strategy Deloitte Consulting LLP 1919 North Lynn St, Arlington, Virginia 22209 Tel/Direct: +1 571 814 6054 | Mobile: +1 214 208 7208 jmennel@deloitte.com | www.deloitte.com

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v.E.1

To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]

From: Melinda Tomaino

Sent: 2018-07-05T07:59:13-04:00

Importance: Normal

Subject: RE: [EXTERNAL] RE: FWS Presentation at AGC's Environmental Conf (Commercial

Construction)

Received: 2018-07-05T07:59:25-04:00

TentativeScheduleCEC2018.pdf

Good morning, Aurelia.

I was unexpectedly out of the office for a few days, so my apologies for not responding immediately. I've answered your questions below. And also attached the most recent event schedule, so you can see the other government speakers.

Please let me know if you need further information from me. I can also prepare a formal invite letter, if needed.

Hope you had a safe and fun holiday. Warm regards, Melinda

Melinda L. Tomaino, LEED® AP

AGC of America www.agc.org

Twitter: <a>@AGCEnvironment

Quality People. Quality Projects.

From: Skipwith, Aurelia [mailto:aurelia_skipwith@ios.doi.gov]

Sent: Thursday, June 28, 2018 9:12 AM **To:** Melinda Tomaino <tomainom@agc.org>

Subject: Re: [EXTERNAL] RE: FWS Presentation at AGC's Environmental Conf (Commercial Construction)

Good morning Melinda,

DOI Ethics has the following questions to complete their review. Could you please answer? Thank you.

- Who is the sponsor or host? ASSOCIATED GENERAL CONTRACTORS OF AMERICA
- 2. Is the sponsor a 501(c)3? NO. AGC IS A 501(c)19
- 3. What is the purpose of the event? EDUCATION
- 4. Is the event a fundraiser? NO. THOUGH WE DO SECURE EVENT SPONSORS
- 5. Who has been invited? (as in nonprofit, other federal executive employees, legislative branch, etc.) ENVIRONMENTAL PROFESSIONALS IN CONSTRUCTION AND RELATED INDUSTRIES; NON-AGC MEMBERS (I.E., PUBLIC, GOVERNMENT OFFICIALS) CAN ALSO REGISTER. IN ADDITION TO THE U.S. FISH AND WILDLIFE SERVICE, REPRESENTATIVES FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY WILL BE IN ATTENDANCE AS SPEAKERS AND THE U.S. ARMY CORPS OF ENGINEERS IS INVITED AS A SPEAKER
- 6. Approximately, how many people are expected to attend? 80-100

7. What is the monetary value of the gift of free attendance? (cost conference fee, registration fee, food, refreshments, entertainment, instruction, and materials furnished to all attendees as an integral part of the event) How was this cost determined? REGISTRATION FEE IS \$495 FOR AGC MEMBERS; COST IS FACTORED BY EVENT SPACE RENTAL FEES. CATERING EXPENSES. AUDIO/VISUAL EXPENSES, MATERIALS COSTS SUCH AS SIGNAGE AND PRINTING FEES, SHIPPING, ETC. COSTS ARE DIVIDED BY EXPECTED NUMBER OF ATTENDEES TO SET REGISTRATION FEE. ALTHOUGH SPEAKERS ARE AUTOMATICALLY GIVEN A COMPLIMENTARY REGISTRATION, THEY DO NOT HAVE TO PARTICIPATE IN ANY OF THE EVENT FUNCTIONS AND CAN CHOOSE TO ATTEND ONLY THEIR EDUCATIONAL SESSION.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

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On Fri, Jun 22, 2018 at 10:27 AM, Melinda Tomaino <tomainom@agc.org> wrote: Aurelia Skipwith,

Good morning. I want to thank you for your willingness to speak to the environmental professionals in the construction industry at our upcoming conference. Leah mentioned that you were going to need to go through a process before you could formally accept the invitation to speak. I wanted to give you some time to take those steps before I send you the conference details. Are you able at this time to confirm your participation? If so, then I'd love to be able to add your name to the schedule and gather your biographical information for the attendees.

Thank you for your consideration of this event.

Regards, Melinda Tomaino

Melinda L. Tomaino, LEED® AP

Director, Environmental Services The Associated General Contractors of America 2300 Wilson Boulevard, Suite 300 Arlington, VA 22201 Direct Phone - (703) 837-5415 Direct Fax - (703) 837-5401 tomainom@agc.org

www.agc.org

Twitter: @AGCEnvironment

AGC-supported environmental compliance & green resources: <u>www.cicacenter.org</u> *Quality People. Quality Projects.*



From: Leah Pilconis

Sent: Tuesday, June 05, 2018 10:28 AM

To: 'aurelia skipwith@ios.doi.gov' <aurelia skipwith@ios.doi.gov>

Cc: Melinda Tomaino <<u>tomainom@agc.org</u>>; Leah Pilconis <<u>pilconisl@agc.org</u>> **Subject:** FWS Presentation at AGC's Environmental Conf (Commercial Construction)

Dear Aurelia -

It was a pleasure speaking with you this morning. As discussed, we would like to formally invite you to present at <u>AGC's 2018 Construction Environmental Conference</u> on September 12-13, in Crystal City, Virginia. We have time set aside an hour – from 10:00 to 11:00 AM – on Thursday, September 13 for an FWS update/overview. My colleague, Melinda Tomaino, director of AGC's environmental services, (copied on this email) is administering this conference; please keep an eye out for any follow-up emails from her – tomainom@agc.org/703.837-5415 – and don't hesitate to reach out if you need more information.

Below is a short bulleted list of issues that are of interest to the commercial construction industry, but please feel free to share additional items that you want to bring to our attention. Some time at the end for questions would be great, too.

Attached please find the schedule of events, subject to change. You are welcome to join us for any part of the conference, as your schedule permits. As I mentioned, and as you can see from our conference Website at http://meetings.agc.org/cec/, a group of AGC in-house environmental managers will meet on September 11 for a day of roundtable discussions on issues that they pick. And following the conference, which I did not mention, our environmental Steering Committee (a smaller group), meets with federal agency staff to discuss regulatory/policy issues that are on the horizon. We have not set that agenda yet; perhaps we will identify a need for our 2 groups to meet to talk face-to-face about some of the topics below.

FWS ISSUES OF INTEREST TO AGC CONTRACTORS

- New DOI <u>memorandum</u> that the Migratory Bird Treaty Act (MBTA) does not prohibit incidental take. Also subsequent DOI guidance to assist agencies within the Department with implementation of the MBTA memo.
- FWS guidance memorandum addressing when an incidental take permit (ITP) may

be needed under Section 10(a)(1)(B) of the Endangered Species Act for projects that modify habitat of federally listed species.

- The following FWS planned regulatory actions:
 - o Clarify and improve rules governing <u>interagency cooperation</u>(link is external) related to Endangered Species Act Section 7 implementation.
 - o Review and revise regulations for <u>listing of species and for designation of critical habitat(link is external)</u>.
 - o Update list of migratory birds(link is external).

Thank you again for your interest in <u>AGC's 2018 Construction Environmental Conference</u>. We very much look forward to your participation – and, most especially, to opening up the lines of communication with FWS.

Warm regards,

Leah

Leah F. Pilconis

Senior Counsel, Construction & Environmental Risk Management

The Associated General Contractors of America -- <u>2300 Wilson Blvd., Suite 300, Arlington, VA 22201</u>

<u>703.837.5332</u> | <u>pilconisl@agc.org</u> | @AGCEnvironment | <u>linkedin.com/in/LeahPilconis</u> | www.agc.org/environment





2018 Construction Environmental Conference

September 12-13, 2018

The DoubleTree by Hilton • 300 Army Navy Drive Crystal City, VA 22202

---- WEDNESDAY, Sept 12----

7:15 AM	Breakfast and CEC Registration
7:45-8:00	Welcome Remarks
8:00-8:30	Regulatory / Legislative Outlook

8:35-9:30 Where We Are with WOTUS and Issues with 404 Permitting

The session will address WOTUS rule developments as well as some of the 404 permitting roadblocks we have heard from members over the past year, including those that relate to species within the permitting process. LARRY LIEBESMAN, DAWSON ASSOCIATES

9:30-9:45 **Refreshment Break**

9:45-11:00 Identifying, Avoiding, Mitigating, and Insuring Environmental Risk in Construction

Panel speakers will present risk assessment and identification from a jobsite perspective, risk allocation such as contract shifting clauses and management strategies, risk transfer such as avoidance of pollution liability and insurance products available.

ADRIAN PELLEN, MARSH (MODERATOR)
CHIP D'ANGELO, WCD GROUP
RON ROBEY SMITH, CURRIE & HANCOCK

RON ROBEY, SMITH, CURRIE & HANCOCK LLP DAVID SLAUGENHOUP, NEW DAY UNDERWRITING

11:00-11:15 Room Transition

11:15-12:15 Environmental Compliance for Hazardous Materials on a Public Private Partnership

Project: CDOT Central 70

Using the CDOT Central 70 project as a backdrop, this panel will share perspectives from the owner and industry including a discussion of the unique procurement process and approaches related to management of hazardous materials during the procurement, kickoff, and construction phases of the project. CDOT Central 70 is a \$1.2 billion project to expand I-70 between Denver and Aurora in Colorado.

BOB HAYS, CO DEPT OF TRANSPORTATION JENN BRADTMUELLER, KIEWIT MERIDIAN SCOTT EPSTEIN, PINYON ENVIRONMENTAL

Redevelopment Opportunities and Risk

This session will examine recent changes to policy related to Superfund/Brownfields (such as the BUILD Act) as well as the potential hazards in the use of those sites., such as vapor intrusion.

JERRY WORSHAM II, CAVANAGH LAW FIRM, PA RON JAMES, DOMINION DUE DILIGENCE GROUP (D3G)

12:15-1:30 **Networking Lunch**

1:30-2:30 Planning, Community Involvement, Restoration, and Natural Resources Management

This session will discuss how to focus (and deliver) your mitigation/restorative efforts on what will meet community and wildlife needs. Explore opportunities and strategies for ecologically regenerative development around a proposed highway corridor; as well as how to management public outreach, early engagement on large projects, working with tribes and building a rapport with the community.

CHUCK BUDINGER, AZ DEPT OF TRANSPORTATION ANNE ALLEN, HUWA ENTERPRISES, LLC

Smart Fab: The Great Equalizer

Seventy-seven percent of respondents to a recent poll indicated that prefabrication is gaining acceptance and adoption in the industry. This session will discuss the positive impact on projects, such as in the area of energy efficient materials, life cycle analysis, technology and smart components. Speakers will also discuss the impact that Smart Fab can have on: productivity, manpower, project schedules, material waste, and labor efficiency. BRENT MOSZETER, KAPTURE GROUP SCOTT ROOT, KAPTURE GROUP

2:30-2:45 Refreshment Break

2:45-3:45 **Electronic Solutions for Environmental Training and Compliance**

This contractor panel will discuss electronic solutions employed on jobsites. Electronic tools are helping assist with inspections in the field, tracking permits and creating dashboards to identify trends. Electronic solutions are also used to provide training to employees without having the employees travel.

LIZ FIFER, KIEWIT

ADD'L CONTRACTOR REPRESENTATIVES INVITED

Sustainable Materials Management: Considerations for Life-Cycle Assessment

EPA and industry representatives will give a summary of a recent EPA summit exploring LCA, discuss related advances in materials, and explore sustainable materials/waste management.

RITA CHOW, US ENVIRONMENTAL PROTECTION AGENCY (RESOURCE CONSERVATION AND SUSTAINABILITY)
JOSEPH SHACAT, NATIONAL ASPHALT PAVING ASSN
BILL TURLEY, CONSTRUCTION & DEMOLITION
RECYCLING ASSN

3:45-4:00 Room Transition

4:00-5:00 Tips on How to Avoid Environmental Enforcement Actions

Hear from US EPA, an attorney and a general contractor about "true story" construction related enforcement cases and best practices on how to avoid them. Learn about US EPA's Audit Policy and eDisclosure portal.

AMY PORTER, US ENVIRONMENTAL PROTECTION AGENCY (CIVIL ENFORCEMENT)

BROOKS SMITH, TROUTMAN SANDERS CONNIE DETERMAN, KIEWIT CORP

5:00-6:00 **Networking Reception**

7:00 Wednesday Night Dine Around at Local Restaurants

(Sign-up at the Registration Desk)

——— THURSDAY, Sept 13———

7:15 AM **Breakfast**

7:45-8:00 Welcome Remarks

8:00-8:30 **KEYNOTE SPEAKER**

JENNIFER MOYER, US ARMY CORPS OF ENGINEERS, INVITED

8:30-9:45 **Agency Briefs Panel**

AGC has invited representatives from several program offices at the Environmental Protection Agency to participate in providing briefs on important and emerging issues (e.g., stormwater, groundwater, 404 permitting, aerosol cans, and lead-based paint) and programs such as the Smart Sectors Partnership.

CO MODERATORS:

DAISY LETENDRE, US EPA (SMART SECTORS PARTNERSHIP)
NENA SHAW, US EPA (SMART SECTORS PARTNERSHIP)

PANELISTS:

TRACY ATAGI, US EPA (AEROSOL CANS)

EMILY HALTER, US EPA (WATER ISSUES: STORMWATER, GROUNDWATER)

HAYLEY HUGHES, US EPA, INVITED (LEAD-BASED PAINT) CLAY MILLER, US EPA, INVITED (404 PERMITTING)

9:45-10:00 Refreshment Break

10:00-11:00 Key Developments Related to Species and Migratory Birds

Fish and Wildlife Service representative will provide information on recent policy changes related to endangered and threatened species as well as requirements related to migratory birds.

AURELIA SKIPWITH, US DEPARTMENT OF INTERIOR, INVITED

11:00-11:10 Stretch Your Legs Break

11:10-12:00 Hazardous Chemical Inventory Reporting for the Construction Industry

This session explores how the Emergency Planning and Community Right-to-Know Act requirements play out on a construction project. EPCRA requires reporting about the hazards of chemicals used and stored on-site. This presentation will provide an overview of what materials are reportable under EPCRA, how and when to submit reports, relevant exemptions from reporting and potential consequences of noncompliance.

BRIAN MORRILL, CHMM, CET, GZA GEOENVIRONMENTAL, INC

12:00-12:30 Wrap-Up Session (Take Aways); Closing Remarks and Raffles

12:30 Adjourn

To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]; Cassidy, John Kenneth (US -

Arlington)[jocassidy@deloitte.com]

Cc: Mennel, John (US - Arlington)[jmennel@deloitte.com]; Brian Kelly[bkelly@bkstrategies.com]

From: Gracie, Matthew (US - McLean) **Sent:** 2018-07-09T07:31:04-04:00

Importance: Normal

Subject: RE: Re: Re: [EXTERNAL] time on Monday? // Regulatory analysis -- ESA public

comments

Received: 2018-07-09T07:31:32-04:00

Aurelia

I could do 4pm on Wednesday if that time works.

Cheers

Matt

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Sent: Sunday, July 8, 2018 8:47 PM

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Importance: Normal

Subject: RE: Re: [EXTERNAL] time on Monday? // Regulatory analysis -- ESA public comments

Received: 2018-07-09T07:46:59-04:00

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From: Aurelia Skipwith [mailto:aurelia skipwith@ios.doi.gov]

Sent: Monday, July 9, 2018 7:41 AM

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v.E.1

To: Aurelia Skipwith[aurelia_skipwith@ios.doi.gov]

Cc: Scott_cameron@ios.doi.gov[Scott_cameron@ios.doi.gov]

From: Ellen Paul

Sent: 2018-07-17T06:46:19-04:00

Importance: Normal

Subject: [EXTERNAL] Request for resources for USGS Bird Banding Lab

Received: 2018-07-17T06:46:28-04:00

BBL-DOI-resources2018 final.pdf

Dear Ms. Skipwith,

I apologize for failing to attach the document.

I appealed directly to you and to Mr. Cameron because we have reason to think that USGS leadership will not be responsive.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds



PROVIDING SCIENTIFIC INFORMATION ABOUT BIRDS

American Ornithologists' Union

Association of Field Ornithologists

Birds Caribbean

CIPAMEX (Sociedad para el Estudio y Conservación de las Aves en México)

Cooper Ornithological Society

North American Crane Working Group

Neotropical Ornithological Society

Pacific Seabird Group

Raptor Research Foundation

Society of Canadian Ornithologists/ Société de Ornithologistes du Canada

The Waterbird Society

Wilson Ornithological Society

Ellen Paul
Executive Director
6512 East Halbert Road
Bethesda, MD 20817
Phone (301) 986-8568
Email: ellen.paul@verizon.net

16 July 2018

The Honorable Ryan Zinke Secretary of the Interior

Aurelia Skipworth Deputy Assistant Secretary for Fish, Wildlife, and Parks

Scott Cameron
Acting Assistant Secretary
Policy, Management, and Budget
Department of the Interior

1849 C St., N.W. Washington, D.C. 20240

Dear Secretary Zinke,

The Ornithological Council is a consortium of eleven scientific societies of ornithologists; six are based in the United States. Bird banding is an essential tool in ornithological research, which generates information that is crucial to bird conservation and management. The USGS Bird Banding Lab (BBL) is a very small office that issues permits to band birds, issues the bands to the permit-holders, collects and manages the data from the permitted banders, and provides the data to those who need it for management and conservation decisions. The BBL is crucial to ornithological research and, which is, in turn crucial to bird conservation and management. Without the BBL, much ornithological research would come to a halt, as would much state wildlife agency conservation and management that relies on banding data including harvest management.

We have learned of challenges facing the BBL that would jeopardize the ability of both governmental and non-governmental scientists to conduct the research needed for bird management and conservation. It would also the jeopardize the ability of the state wildlife agencies to conserve and manage bird populations, including the establishment of hunting regulations, which also rely, in part, on banding data. We are writing to request that your office assure that the BBL has the resources to continue these activities.

The BBL works with 3 primary constituencies: (1) The U.S. Fish and Wildlife Service and specifically the Migratory Bird Regulations Committee, which, together with the Flyway Councils (representing the 50 US states and the 13 Canadian provincial and territorial fish and wildlife management agencies) establishes the basic and annual regulations that govern sport hunting; (2) research scientists in academia and other research institutions, and (3) citizen scientists.

For non-game species, banding is a critical research and conservation tool. Even now, despite new, high-tech methods of tracking birds, banding is still an essential component of ornithology and is by far the most common method used to assess various aspects of avian demography. The BBL permits also allow scientists to take feathers for use in determining wintering locations and blood samples which are used for genetic testing, as well as monitoring diseases of real threat to humans. Without these permits and the bands supplied to the permittees (for both game and nongame species), researchers would be unable to conduct this research. The data they generate and provide to the DOI at the relatively small cost of maintaining the BBL is a very good value to DOI. This is the essence of a good private-public partnership.

Data derived from recovery of bird bands is essential to assessing the impact of harvest on the populations of hunted species. The data allow the U.S. Fish and Wildlife Service and the U.S. Geological Survey to estimate survival rates and understand the population dynamics of a particular species. In addition, the effects of environmental conditions and the effects of management actions on survival can be investigated using banding and encounter data. These are the critical elements for determining the annual limits for each species in each Flyway.

Since November 2017, the BBL has lost one-third of its staff (six people). It now functions with half the staff it had ten years ago. The workload has not decreased; the amount of data handled by the BBL has increased, the number of bands issued has increased, and the number of banding permit applications is increasing. Now, only 11 people handle all BBL functions, and this is feasible due only to automation. About 18 years ago, the USGS authorized funding for a new computer system. That system is now nearly obsolete and funding for a replacement will be needed in approximately two years. In addition, funding for a programmer will be needed. In the meantime, USGS is apparently planning to stop funding the license for the existing system. Unless the Patuxent Wildlife Research Center (PWRC) can cover the cost, the data management function of the BBL will cease. It seems very unlikely that PWRC will be able to cover this cost. The data needed for annual migratory bird harvest regulations will not be available.

As to staffing, the BBL has two vacant FTE slots for GS11/12 biologists for which hiring waivers are needed. The BBL has a hiring waiver for a single-term GS7 position but what the BBL really needs is hiring waivers for two FTE GS 7/9 positions that would replace two permanent GS6 clerical FTEs (vacancies due to retirement), the term GS 7 position, and two contract positions (one full-time, one part-time) that were not renewed in early 2018. In sum, the two GS7/9 slots would replace 4.5 staff.

For these reasons, we urge the Department of the Interior to:

- Assure that funding is available to the BBL to renew the Oracle licenses
- Provide funding for a new data management system

- Provide funding for a programmer for transition to the new data management system
- Issue hiring waivers for the two vacant FTE slots for GS11/12 biologists
- Issue hiring waivers for two FTE GS7/9 slots

We thank you for your attention to our concerns and hope to have an opportunity to meet with your staff to discuss the situation and explore solutions.

Sincerely,

Ellen Paul

Executive Director

To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]
Cc: Scott Cameron[Scott_cameron@ios.doi.gov]

From: Ellen Paul

Sent: 2018-07-17T15:08:18-04:00

Importance: Normal

Subject: [EXTERNAL] Request for resources for USGS Bird Banding Lab

Received: 2018-07-17T15:08:30-04:00

Thank you very much! I actually realized my error after I wrote to you. I had sent you an earlier letter pertaining to the U.S. Fish and Wildlife Service, Division of Migratory Bird Management. When I wrote the letter pertaining to the Bird Banding Lab, I simply copied the header. Of course I know it should have been Mr. Petty and Ms. Travnicek and I have now re-directed the letter to them.

However, if at all possible, I would very much like to meet with you regarding the Division of Migratory Bird Management. I was so pleased with their plans to move forward with a number of reforms we have been requesting for many years and I would like to know what we can do to encourage your office to support those efforts. There are two terrific people handling that program - Eric Kershner and Ken Richkus - and I hope they get all the support and resource they need.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/17/18 3:01 PM, Skipwith, Aurelia wrote:

Ellen,

Let me look into this and get back to you. Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Tue, Jul 17, 2018 at 6:46 AM, Ellen Paul < (b) (6) wrote:

Dear Ms. Skipwith,

I apologize for failing to attach the document.

I appealed directly to you and to Mr. Cameron because we have reason to think that USGS leadership will not be responsive.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

To: Aurelia_skipwith@ios.doi.gov[Aurelia_skipwith@ios.doi.gov]

From: Kurt Schwarz

Sent: 2018-07-17T16:00:51-04:00

Importance: Normal

Subject: [EXTERNAL] Please Keep Eastern Neck National Wildlife Refuge Open

Received: 2018-07-17T16:01:00-04:00

Dear Assistant Secretary Skipwith:

The Maryland Ornithological Society is shocked to learn that Eastern Neck National Wildlife Refuge may be closed because it lacks a Refuge Manager. Eastern Neck is important to the Maryland Birding Community, as it is home to breeding, wintering, and migratory bird species. It has also hosted such rarities as Fork-tailed Flycatcher and Pacific Loon. This refuge is a big tourism draw for Chestertown and Rock Hall, and our members visit it often. The spectacle of Tundra Swans in the colder months is well worth the trip. Eastern Neck is one of only two National Wildlife Refuges open to the public on Maryland's Eastern Shore, and the entire Maryland birding community wishes to keep it open, not only for their benefit, but to provide outdoor recreation opportunities to the entire public. We ask that you make the new manager position at Eastern neck a budget priority and ensure the USFWS does not close the refuge. The favor of a reply is requested.

Sincerely,

Kurt R, Schwarz Conservation Chair Maryland Ornithological Society www.mdbirds.org

(b)(6)

To: aurelia_skipwith@ios.doi.gov[aurelia_skipwith@ios.doi.gov]

From: Congressional Sportsmen's Foundation

Sent: 2018-07-17T16:06:17-04:00

Importance: Normal

Subject: [EXTERNAL] Senate Congressional Sportsmen's Caucus Leaders Introduce Recovering

America's Wildlife Act

Received: 2018-07-17T16:06:25-04:00

S. 3223 Introduced in the Senate

I Trouble viewing this email? Click here to view in browser

To All Media
FOR IMMEDIATE RELEASE

CONTACT: Sara Leonard sleonard@congressionalsportsmen.org 202-543-6850 x 11

1

Senate Congressional Sportsmen's Caucus Leaders Introduce Recovering America's Wildlife Act

July 17, 2018 (Washington, DC) - Congressional Sportsmen's Caucus (CSC) leaders Senators Jim Risch (ID), Joe Manchin (WV), and Heidi Heitkamp (ND), along with CSC Member Senator Lamar Alexander (TN) introduced the Recovering America's Wildlife Act (S. 3223).

This bill aims to meet the increasing need for proactive state-based fish and wildlife conservation funding for the full array of our nation's fish and wildlife and the habitats they depend on. S. 3223 would authorize \$1.3 billion of existing revenue from royalties on onshore energy and mineral development on federal lands and waters to be used to provide funding for state-based fish and wildlife conservation.

The House bill, H.R. 4647, was introduced by CSC Members Congressman Jeff Fortenberry (NE) and Congresswoman Debbie Dingell (MI) in December 2017, and since has received strong bipartisan support from over 70 cosponsors and the House Natural Resources Committee as well as from the wildlife conservation community (including 37 members of the American Wildlife Conservation Partners and several members of the Alliance for America's Fish and Wildlife hosted a Capitol Hill Breakfast Briefing in March to discuss the importance of this legislation.

"We applaud the Senate Congressional Sportsmen's Caucus leaders Senators Risch, Manchin, and Heitkamp, as well as Caucus Member Senator Alexander for introducing this important piece of legislation. America's hunters, anglers, recreational shooters, and boaters have been the primary funders of state-based conservation efforts to this day. This legislation will complement the contributions of sportsmen and women to ensure healthy fish and wildlife populations for future generations to enjoy," said **CSF President Jeff Crane**.

"This legislation puts states back in control of conservation efforts and affords them greater flexibility to meet their state-specific needs, while also protecting the legacy of hunting and the

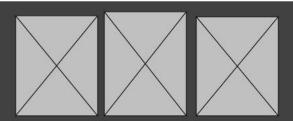
value the industry brings to wildlife conservation," said **Sen. Risch, CSC Co-Chair**. "Additionally, by engaging in these proactive, voluntary conservation actions, we will save millions of tax dollars that are otherwise spent on restoring threatened and endangered species."

"In West Virginia hunting, fishing and outdoor activities are family traditions deeply ingrained in who we are as a state. The Recovering America's Wildlife Act will ensure we continue to promote our state's unique wildlife and preserve our rich outdoor traditions. That's why I am proud to introduce this bipartisan bill to make West Virginia even more wild and wonderful," said CSC Co-Chair Sen. Manchin.

The Senate version of Recovering America's Wildlife Act now awaits being scheduled for a Committee hearing.

###

Since 1989, the Congressional Sportsmen's Foundation (CSF) has maintained a singleness of purpose that has guided the organization to become the most respected and trusted sportsmen's organization in the political arena. CSF's mission is to work with Congress, governors, and state legislatures to protect and advance hunting, angling, recreational shooting and trapping. The unique and collective force of the Congressional Sportsmen's Caucus (CSC), the Governors Sportsmen's Caucus (GSC) and the National Assembly of Sportsmen's Caucuses (NASC), working closely with CSF, and with the support of major hunting, angling, recreational shooting and trapping organizations, serves as an unprecedented network of pro-sportsmen elected officials that advance the interests of America's hunters and anglers.



Working with Congress, governors and state legislatures to protect and advance hunting, angling, recreational shooting and trapping.

For more information on the Congressional Sportsmen's Foundation go to congressional sportsmen.org.



Congressional Sportsmen's Foundation, 110 North Carolina Avenue, SE, Washington, DC 20003

SafeUnsubscribe™ aurelia skipwith@ios.doi.gov

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To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]; Aurelia Skipwith (b) (6

From: Scott Talbott

Sent: 2018-07-18T14:44:22-04:00

Importance: Normal

Subject: [EXTERNAL] Fwd: Statements from AFWA and the Alliance for America's Fish & Wildlife

Supporting Introduction of the Recovering America's Wildlife Act in the Senate

Received: 2018-07-18T14:44:30-04:00

S.3223 Alliance Release.pdf

PR-AFWA Supports Senate RAWA Bill.pdf

image002.emz

Aurelia,

Here is some background on one of the issues we visited about this morning.

St

----- Forwarded message -----

From: Angela Rivas Nelson < Arnelson@fishwildlife.org>

Date: Wed, Jul 18, 2018 at 10:03 AM

Subject: Statements from AFWA and the Alliance for America's Fish & Wildlife Supporting

Introduction of the Recovering America's Wildlife Act in the Senate

To: Angela Rivas Nelson < <u>Arnelson@fishwildlife.org</u>>



FOR IMMEDIATE RELEASE:

ASSOCIATION of Contact: Patricia Allen, 202-838-3461 / Fax 202-350-9869, pallen@fishwildlife.org

Statement from the Association of Fish and Wildlife Agencies Supporting the Introduction of the Recovering America's Wildlife Act in the Senate

Washington D.C. (July 17, 2018) - The Association of Fish and Wildlife Agencies strongly supports the introduction of the Recovering America's Wildlife Act (S.3223) in the U.S. Senate today. Senators James Risch (R-Idaho) and Joe Manchin (D-West Virginia) introduced legislation that recommends funding for conservation of those fish and wildlife species in greatest need across the country.

This bipartisan legislation would authorize \$1.3 billion in existing revenue from the development of energy and mineral resources on federal lands and waters to the Wildlife Conservation Restoration Program to conserve a full array of fish and wildlife. The Senate bill complements the House version (H.R. 4647), introduced in December 2017 by Jeff Fortenberry (R-NE-1) and

Debbie Dingell (D-MI-12), which has gained strong, bipartisan co-sponsorship due to its innovative approach to solving America's wildlife crisis, with the current list of co-sponsors growing to more than 75 members.

"Our nation's fish and wildlife are the foundation of our natural heritage, held in the public trust for all to enjoy, and cared for by the state fish and wildlife agencies. The Recovering America's Wildlife Act would help all species including many that are hunted and fished and those that are not continue to thrive," stated Virgil Moore, President of the Association of Fish and Wildlife Agencies and Director of Idaho Fish and Game. "We applaud Senator Risch from my home state of Idaho and Senator Manchin of West Virginia for their leadership on this important legislation that will help management and conservation of fish and wildlife, and bolster our great outdoor recreation economy."

"This legislation puts states back in control of conservation efforts and affords them greater flexibility to meet their state-specific needs, while also protecting the legacy of hunting and the value the industry brings to wildlife conservation," said Senator Risch, Co-Chair of the Congressional Sportsman's Caucus. "Additionally, by engaging in these proactive, voluntary conservation actions, we will save millions of tax dollars that are otherwise spent on restoring threatened and endangered species."

"In West Virginia hunting, fishing and outdoor activities are family traditions deeply ingrained in who we are as a state. The Recovering America's Wildlife Act will ensure we continue to promote our state's unique wildlife and preserve our rich outdoor traditions. That's why I am proud to introduce this bipartisan bill to make West Virginia ever more wild and wonderful," Senator Manchin said.

"The Blue Ribbon Panel recommended a proactive approach to conservation funding," said Greg Hill, President and Chief Operating Officer, Hess Corporation. "The funding model that forms the basis for this legislation is better for taxpayers and businesses and, most importantly, better for the long-term conservation of fish and wildlife species in danger."

"This bill is complementary to existing natural resource conservation and outdoor recreation programs and will allow all Americans to become investors in fish and wildlife conservation," said Executive Director Ron Regan. "Our funding model can no longer keep up with the needs of the full array of fish and wildlife in this country. The Recovering America's Wildlife Act provides a modern solution to an age old problem and allows states to more fully implement their State Wildlife Action Plans."

These critical efforts are supported by the <u>Alliance for America's Fish & Wildlife</u>, whose purpose is to create a 21st-century funding model for critically needed conservation of our nation's most precious natural resources, our fish and wildlife. This effort was built upon the strong partnership created by the Blue Ribbon Panel on Sustaining America's Diverse Fish & Wildlife Resources, consisting of members representing the outdoor recreation, retail and manufacturing sector, the energy and automotive industries, private landowners, educational institutions, conservation organizations, sportsmen's groups and state and federal fish and wildlife agencies.

###

The Association of Fish & Wildlife Agencies represents North America's fish and wildlife agencies to advance sound, science-based management and conservation of fish and wildlife and their habitats in the public interest. The Association represents its state agency members on Capitol Hill and before the Administration to advance favorable fish and wildlife conservation policy and funding and works to ensure that all entities work collaboratively on the most important issues. The Association also provides member agencies with coordination services on cross-cutting as well as species-based programs that range from birds, fish habitat and energy development to climate change, wildlife action plans, conservation education, leadership training and international relations. Working together, the Association's member agencies are ensuring that North American fish and wildlife management has a clear and collective voice.

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FOR IMMEDIATE RELEASE

Contact: Sean Saville ssaville@fishwildlife.org (202) 838-2561

Alliance for America's Fish & Wildlife Applauds Senate Introduction of Recovering America's Wildlife Act, Recognizes Important Wildlife Conservation Opportunity

WASHINGTON, **DC** – **July 17**, **2018** The Alliance for America's Fish & Wildlife is excited to see introduction of the *Recovering America's Wildlife Act (S.3223)* in the United States Senate today. Senators James Risch (R-ID) and Joe Manchin (D-WV) along with their colleagues Lamar Alexander (R-TN), and Heidi Heitkamp (D-ND) introduced bipartisan legislation that recommends funding for conservation of those fish and wildlife species in greatest need across the country.

S.3223 recommends that Congress authorize \$1.3 billion annually from energy development on federal lands and waters to the existing Wildlife Conservation Restoration Program to conserve the full array of fish and wildlife. This solution, proposed initially by leaders of the energy, outdoor recreation retail, manufacturing, and automotive sectors and well as sportsmen's/women's and other conservation groups is complementary to existing natural resource conservation and outdoor recreation programs and will not require taxpayers or businesses to pay more, but instead allows all Americans to become investors in fish and wildlife conservation.

The Senate bill complements the House version (*H.R.* 4647), introduced in December 2017 by Jeff Fortenberry (R-NE-1) and Debbie Dingell (D-MI-12), which has gained strong, bipartisan co-sponsorship due to its innovative approach to solving America's wildlife crisis, with the <u>current list of co-sponsors growing to over 75 members</u>.

"This legislation puts states back in control of conservation efforts and affords them greater flexibility to meet their state-specific needs, while also protecting the legacy of hunting and the value the industry brings to wildlife conservation," **said Senator Risch**, **Co-Chair of the Congressional Sportsman's Caucus**. "Additionally, by engaging in these proactive, voluntary conservation actions, we will save millions of tax dollars that are otherwise spent on restoring threatened and endangered species."

"In West Virginia hunting, fishing and outdoor activities are family traditions deeply ingrained in who we are as a state. The Recovering America's Wildlife Act will ensure we continue to promote our state's unique wildlife and preserve our rich outdoor traditions. That's why I am proud to introduce this bipartisan bill to make West Virginia ever more wild and wonderful," **Senator Manchin said.**

"Our nation's fish and wildlife are the foundation of our natural heritage, held in the public trust for all to enjoy, and cared for by the state fish and wildlife agencies. The

Recovering America's Wildlife Act would help all species including many that are hunted and fished and those that are not continue to thrive," **stated Virgil Moore**, **President of the Association of Fish and Wildlife Agencies and Director of Idaho Fish and Game**. "We applaud Senator Risch from my home state of Idaho and Senator Manchin of West Virginia for their leadership on this important legislation that will help management and conservation of fish and wildlife, and bolster our great outdoor recreation economy."

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"We applaud the Senate Congressional Sportsmen's Caucus leaders Senators Risch, Manchin, and Heitkamp, as well as Caucus Member Senator Alexander for introducing this important piece of legislation," **said Congressional Sportsmen's Foundation President Jeff Crane**. "America's hunters, anglers, recreational shooters, and boaters have been the primary funders of state-based conservation efforts to this day. This legislation will complement the contributions of sportsmen and women to ensure healthy fish and wildlife populations for future generations to enjoy."

"America's wildlife are in crisis more than one third of all species are vulnerable or at risk. We're grateful to Senators Risch and Manchin for introducing a bill that demonstrates that the best way to save America's 12,000 at-risk species is through collaborative, proactive, on-the-ground conservation efforts," **said Collin O'Mara**, **President and CEO of the National Wildlife Federation**. "This bill is an important step in the right direction and we look forward to working with the Senate to strengthen it further by adding the dedicated funding necessary to save the full diversity of wildlife species through collaborative conservation, just as the Federal Aid in Wildlife Restoration Act of 1937 (Pittman-Robertson) helped fuel the recovery of wildlife from pronghorn, elk, and bighorn sheep to waterfowl and ducks."

"Outdoor Industry Association fully supports the Recovering America's Wildlife Act (RAWA) which aims to bolster fish and wildlife habitat conservation," **said Amy Roberts, Executive Director for the Outdoor Industry Association**. "We urge the Senate to approve the Act and applaud the hard work and leadership by Senators Risch (R-ID), Manchin (D-WV), Alexander (R-TN), and Heitkamp (D-ND) to sponsor and push it, as we could soon have a more proactive model for conservation of our nation's fish and wildlife."

Please visit <u>OurNatureUSA.com</u> for more information on the Alliance as well as to contact your Senators and U.S. Representatives in support of passage of the Recovering America's Wildlife Act so future generations may enjoy the same abundant fish, wildlife and outdoor recreation opportunities that we have today.

###

About the Alliance for America's Fish & Wildlife

The Alliance for America's Fish and Wildlife formed in 2017 to secure funding for much needed conservation of our most precious natural resources, our fish and wildlife. The Alliance was built upon the strong partnership created by the Blue Ribbon Panel on Sustaining America's Diverse Fish & Wildlife Resources. The Alliance consists of members in the outdoor recreation retail and manufacturing sector, the energy and automotive industries, private landowners, educational institutions, sportsmen's and other conservation organizations, and state and federal fish and wildlife agencies representing more than a trillion dollars of economic impact, millions of non-exportable jobs, and tens of millions of members and consumers across the country, all who rely on healthy fish and wildlife populations. Our goal is to partner with all Americans to conserve our natural resources for future generations. Learn more at OurNatureUSA.com, and see here a list of Alliance members.

Follow the Alliance for America's Fish & Wildlife

- Facebook Our Nature. Our Nation. Our Future.
- Instagram @OurNatureUSA
- YouTube Our Nature USA
- Twitter @OurNatureUSA
- Tumblr @OurNatureUSA

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Scott Talbott Director

Wyoming Game and Fish Department 5400 Bishop Blvd.
Cheyenne, WY. 82006
wgfd.wyo.gov
scott.talbott@wyo.gov

W (307) 777-4501 F (307) 777-4699



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The voice of fish and wildlife agencies

1100 First Street, NE, Suite 825 Washington, DC 20002 Phone: 202-838-3474

Fax: 202-350-9869

Email: info@fishwildlife.org

For Immediate Release

Contact: Patricia Allen
Director of Communications
202-838-3461 office I 443-808-6437 cell
pallen@fishwildlife.org

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FOR IMMEDIATE RELEASE

Contact: Sean Saville ssaville@fishwildlife.org (202) 838-2561 Alliance for America's Fish & Wildlife Applauds Senate Introduction of Recovering America's Wildlife Act, Recognizes Important Wildlife Conservation Opportunity

Alliance Supports Senate Commitment to Needed Wildlife Conservation Funding

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- Twitter @OurNatureUSA
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To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]; Aurelia Skipwith (b) (6

From: Scott Talbott

Sent: 2018-07-18T14:51:05-04:00

Importance: Normal

Subject: [EXTERNAL] Fwd: Statements from AFWA and the Alliance for America's Fish & Wildlife

Supporting Introduction of the Recovering America's Wildlife Act in the Senate

Received: 2018-07-18T14:51:15-04:00

S.3223 Alliance Release.pdf

PR-AFWA Supports Senate RAWA Bill.pdf

image004.emz

More....:)

----- Forwarded message -----

From: Angela Rivas Nelson < Arnelson@fishwildlife.org >

Date: Wed, Jul 18, 2018 at 10:04 AM

Subject: Statements from AFWA and the Alliance for America's Fish & Wildlife Supporting

Introduction of the Recovering America's Wildlife Act in the Senate

To: Angela Rivas Nelson < Arnelson@fishwildlife.org >



FOR IMMEDIATE RELEASE:

ASSOCIATION of Contact: Patricia Allen, 202-838-3461 / Fax 202-350-9869, pallen@fishwildlife.org

Statement from the Association of Fish and Wildlife Agencies Supporting the Introduction of the Recovering America's Wildlife Act in the Senate

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FOR IMMEDIATE RELEASE

Contact: Sean Saville ssaville@fishwildlife.org (202) 838-2561

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Scott Talbott Director

Wyoming Game and Fish Department 5400 Bishop Blvd.
Cheyenne, WY. 82006
wgfd.wyo.gov
scott.talbott@wyo.gov

W (307) 777-4501 F (307) 777-4699



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The voice of fish and wildlife agencies

1100 First Street, NE, Suite 825 Washington, DC 20002 Phone: 202-838-3474

Fax: 202-350-9869

Email: info@fishwildlife.org

For Immediate Release

Contact: Patricia Allen
Director of Communications
202-838-3461 office I 443-808-6437 cell
pallen@fishwildlife.org

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Contact: Sean Saville ssaville@fishwildlife.org (202) 838-2561 Alliance for America's Fish & Wildlife Applauds Senate Introduction of Recovering America's Wildlife Act, Recognizes Important Wildlife Conservation Opportunity

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To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]
Cc: Scott Cameron[Scott_cameron@ios.doi.gov]

From: Ellen Paul

Sent: 2018-07-18T19:45:50-04:00

Importance: Normal

Subject: [EXTERNAL] Request for resources for USGS Bird Banding Lab

Received: 2018-07-18T19:46:01-04:00

DOI RegBurdenug2017.pdf

Dear Aurelia,

It is a rather dry, technical (weedy) list involving some regulatory changes and more procedural changes, both substantive and as to the manner in which the DMBM makes decisions and implements them at a sub-regulatory level, plus some basic management issues such as training. These procedures often result in the inefficient administration of the permits program and additional burden for the research community without any benefit for bird conservation and management or for practical concerns such as law enforcement. For years, we have asked for reasons for these practices and have received no responses. In the rare instance when we've been given an explanation, it often belies a lack of understanding of other statutes, regulations, and procedures that affect the same transaction. I want to stress that these problems emanate primarily from the regions and that Region 9 seemingly does not have the authority it needs to resolve the problem. I am confident that Dr. Kershner and Dr. Richkus are on-track to address these problems but need support from the USFWS and DOI directorates. It is my understanding that the Solicitor's office is sending someone to the next national permit coordinator's meeting. That's an example of the kind of support they need.

To give you a few examples:

- 1. Some regions have insisted on issuing separate MBTA permits for every import rather than issuing a single permit for all MBTA species (that are not also ESA or CITES) for all countries for the duration of the permit. They insist that the importer amend the permit for each import, despite the fact that they have no basis for denying the permit or the amendment. The question of species and number of specimens or samples is controlled entirely by the country of export. The Lacey Act prohibits imports of wildlife taken in violation of the country of export, so to import, one must have a valid export permit. It is controlled by the import process implemented by the Office of Law Enforcement. These serial amendments are a waste of time for everyone and once the new fee rule is promulgated, it will also be costly because the new rule will (we've been told) impose a cost of \$50 per amendment (there is currently no fee).
- 2. The DMBM has been working on a National Standard Operating Procedure for imports and exports (good!) for over three years (not good). As with most of their procedural standards, it has been hung up on rather minor points raised by the regions. They have also been working on a subregulatory policy for scientific collecting since 1995! As best I know, it was last revised in 2004 but it is still in draft and has never been finalized.

- 3. For some reason, permittees who import under scientific collecting permits with import authority may allow others to use their permits by providing a letter of authorization (good!) but permittees who import under import-export permits are not allowed to do so. Instead, they must list all subpermittees, meaning that each time a subpermittee leaves the lab or institution or a new person joins the lab or institution, an amendment is needed. This is a waste of time for the permits staff and for the researchers and, when fees are eventually imposed on amendments, it will become costly. It is the exact same transaction but the procedures differ for no apparent reason.
- 4.Exemptions to scientific collecting permit requirement Over the years we have been told informally that permits re not needed for owl pellets, cloacal samples, feces, synthetic DNA. However, to the best of our knowledge, no written policy document exists. This results in uncertainty. Researchers need to contact permit staff to ask these questions. A written policy document would save everyone time. It could and should be incorporated into a National Standard Operating Procedure for scientific collecting permits, which could and should also include the policy for scientific collecting.

In addition to numerous other MBTA permit issues, there are also concerns about CITES permits. For instance, we filed a petition in 2014 asking the USFWS to suspend or revoke the "validation" requirement for scientific imports. This requirement - which of course emanates from a resolution adopted at a Conference of the Parties - has proved to be virtually unworkable and has jeopardized any number of scientific imports. The DMA was to address the petition in its revision of the CITES regulations that followed COP16 (2013) but no regulation was ever proposed. It was then to be addressed in the revision that followed COP17 (2016). Of course, that regulatory process was put on hold following the election. Shortly after the election, we wrote to Neomi Rao at OIRA and to Secretary Zinke, asking that this regulatory revision be allowed to proceed and based on the most recent regulatory agenda, it appears to be moving forward. Oversight would be greatly appreciated.

We also have a petition pending to the Office of Law Enforcement, again, since 2014. We understand that OLE is waiting until its implementation of the Customs and Border Protection Automated Commercial Environment (ACE) process is complete as it will necessitate a number of regulatory changes. I would be remiss in not lauding Sheila Einsweiler who frankly deserves DOI's highest employee award not only for her absolutely colossal work over at least a decade on this enormously challenging process, but also for her outreach to the community on this and many other law enforcement matters over the past two decades.

Finally, there is one major issue involving the National Park Service that we worked on for years and had thought was resolved only to have the NPS renege at the 11th hour. They had been talking about a press conference for the formal signing of an agreement and then all of a sudden and for no apparent reason, they simply walked away. The issue involves specimen ownership. We had reached agreement calling for the right of permanent possession with a number of other provisions that were beneficial to both the NPS and the museum community.

The draft agreement was essentially the same as that entered into between NPS and the National Museum of Natural History, so we know the terms were acceptable to the NPS. I wonder if you might be interested in discussing that issue, too?

I won't burden you now with other examples. I am very grateful to you for your interest and hope to meet with you in the near future. I am sure your schedule is very tight but I can meet with you early in the morning (I am a birder; we are always up before dawn and I am at work by 7 a.m.) or in the evening, or at any time that works for you.

Sincerely,

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/18/18 6:53 PM, Skipwith, Aurelia wrote:

Ellen,

It's great to hear wonderful news about people in the FWS programs. I will pass your comments to them.

It would be helpful to know what topics you'd like to discuss. Could you please elaborate? Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Tue, Jul 17, 2018 at 3:08 PM, Ellen Paul < (b) (6) wrote:

Thank you very much! I actually realized my error after I wrote to you. I had sent you an earlier letter pertaining to the U.S. Fish and Wildlife Service, Division of Migratory Bird Management. When I wrote the letter pertaining to

the Bird Banding Lab, I simply copied the header. Of course I know it should have been Mr. Petty and Ms. Travnicek and I have now re-directed the letter to them.

However, if at all possible, I would very much like to meet with you regarding the Division of Migratory Bird Management. I was so pleased with their plans to move forward with a number of reforms we have been requesting for many years and I would like to know what we can do to encourage your office to support those efforts. There are two terrific people handling that program - Eric Kershner and Ken Richkus - and I hope they get all the support and resource they need.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/17/18 3:01 PM, Skipwith, Aurelia wrote:

Ellen,

Let me look into this and get back to you. Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

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30 August 2017

Neomi Rao, Esq. Administrator Office of Information and Regulatory Affairs The Office of Management and Budget 725 17th Street, NW Washington, DC 20503

The Hon. Ryan Zinke Secretary of the Interior 1849 C St., N.W. Washington, DC 20240

Dear Ms. Rao and Mr. Zinke,

The Ornithological Council is a consortium of 11 scientific societies of ornithologists. Seven of the societies are based in the United States but the members of all 11 study birds everywhere in the world. Their research is subject to a wide array of regulations. Some, such as those implementing the Migratory Bird Treaty Act, protect bird species and require permits for nearly all research activities. Other regulations control activities on public lands, again, through a permit system (in most cases). Of course, many guidance documents and other subregulatory policies supplement the formal regulations.

We are writing to encourage the Department of the Interior Office of Policy, Management, and Budget and the OMB Office of Information and Regulatory Affairs to:

- (1) reinstate two specific regulatory proceedings that have apparently been terminated;
- (2) implement a formal system for assuring timely, substantive responses to petitions for rulemaking;
- (3) establish a system of engagement in regular consultation with the regulated community and commitment to timely responses via a tracking system; and
- (4) engage in regular consultation with the regulated community and commit to timely response.

We want to stress that we in no way object to these regulations on principal. We whole-heartedly support the efforts of DOI agencies to protect wild birds and other natural resources. Indeed, it was the largest and oldest of our member societies the American Ornithologists' Union (now known as the American Ornithological Society) that in 1886 wrote and promoted the "Model Law" to protect wild bird

populations. Originally intended to serve as model legislation for the states, it later became the foundation for the Migratory Bird Treaty Act (MBTA). That model like, like the state laws and the MBTA itself, provide for permits for scientific research. Although some might regard this as a regulatory burden, it is actually problematic only in certain aspects of implementation. Whatever burdens it and similar natural resource conservation laws might pose are generally warranted. Only when the requirements do not rest on a sound biological basis and do not enhance the protection of wildlife or otherwise serve the purpose of the law do we take issue.

We also point out that we are proud to consider the DOI agencies, and particularly the U.S. Fish and Wildlife Service, as partners. They perform a vital service under very challenging circumstances, including inadequate staffing and inadequate funding. Our suggestions will actually reduce burden on those staffers without reducing their ability to implement the relevant laws in a meaningful way, and allow them to focus their limited time and resources on more critical issues.

Finally, we preface these comments by stating that it is not our intent to single out any particular division of the USFWS. These examples happen to involve certain divisions only because most of the regulations, policies, and procedures that affect ornithological research are issued and implemented by those divisions.

Against that background, we ask OIRA and OPMB to address certain specific concerns.

Reinstate and complete the CITES regulatory revision (RIN: 1018-AZ73)

The pending regulatory revision is necessary to comply with our treaty obligations and will also give the agency an opportunity to reduce the regulatory burden on our community. We therefore ask that OMB and OPMB reinstate this regulatory proceeding.

Justification: The Convention on International Trade in Endangered Species (CITES) is a treaty obligation of the United States; it is implemented through Section 8a of the Endangered Species Act [16 U.S.C. 1537(a) et seq.]. Every three years, the parties to the Convention meet to discuss and decide upon a number of issues, including implementation and species listings. The regulatory provisions (at 50 CFR Part 23) were last revised in 2014 (79 FR 32677 et seq.) to implement the changes made at COP14 (held in 2007) and COP15 (held in 2010). The pending revision would have implemented changes made at COP16 (held in 2013) and COP17 (held in 2016).

We are of course concerned about complete and effective implementation of the Convention in general terms because we strongly support its wildlife conservation purpose. Our specific concern, however, about this regulatory update relates to a particular implementation provision that has proved extremely burdensome and, in fact, unworkable. Known as the "validation" requirement, it was intended to enhance enforcement and reporting and went into effect in 2008. After struggling for several years to comply, and having had numerous scientific imports threatened with or actually refused entry or seized, the ornithological community, represented by our organization, filed a petition requesting that the USFWS suspend or revoke the requirement.

A copy of the petition, filed in 2014, is enclosed with this letter. It is to be updated and re-filed within the week.

We were informed by the Division of Management Authority that the petition would be addressed in the context of the regulatory revision for COP16 (held in 2013). Unfortunately, no regulatory revision was proposed and soon, the next COP was about to take place (September 2016). We were informed that the 2014 petition, along with revisions incorporating changes made by the parties to the Convention in the two prior conventions, would be addressed under RIN 1018-AZ73.

When the Spring 2017 Current Unified Agenda of Regulatory and Deregulatory Actions was published last month, we noted that RIN 1019-AZ73 had been deleted. It seems not to be on the long-term list or the inactive list. We plan to re-file the petition within the week, but there is currently no pending regulatory action under which this petition could be addressed. We have already waited over three years for a response to this petition and if the agency must initiate a new rulemaking, it will almost certainly take longer than would have been the case under the pending regulatory revision.

Reinstate and complete the conservation education permit regulation (RIN 1018-AI97)

The pending regulation would have enhanced conservation education and eliminated a barrier to scientific research that did not protect avian species listed under the Migratory Bird Treaty Act. We ask that this regulatory process be reinstated and that the agency be given adequate resources to issue the final regulation.

Justification: This proposed rulemaking, published in 2010 (75 FR 57413) would have created a new permit under the Migratory Bird Treaty Act. The permit would have allowed possession of non-releasable live birds, captive-bred migratory birds, and bird parts for the purpose of conservation education. We strongly support that activity and the development of a permit for that purpose. However, our primary concern with this particular regulation was a provision that our organization had been requesting for at least a decade. Known informally as "citizen salvage," it would have allowed "Entities that remain exempt from the permit requirement to hold dead specimens would be allowed to accept such specimens from members of the public who, without a permit, pick them up and then attempt to donate them to museums. Those persons would be exempt from the permit requirement for such one-time salvage provided they promptly donate the specimens to a person or institution authorized to possess the specimens by permit or permit exception." We were extremely pleased to see this provision in the proposed regulation.

Due to insufficient staffing levels, compounded by staffing re-assignments, the proposed regulation languished after the comment period closed on 20 December 2010. It was apparently withdrawn on 11 April 2017 "to allow the Department to assess the action further and determine whether rulemaking is appropriate. Following such an assessment, the Department may determine that certain rules listed as withdrawn under this agenda are appropriate for promulgation. If that determination is made, such rules will be included in a succeeding semiannual agenda under new RINs."

This regulation would be very beneficial to ornithological research. It would actually remove a regulatory barrier that has been problematic for decades.

Institute a formal system for assuring substantive responses to petitions for rulemaking

We request that DOI institute a formal system of tracking rulemaking petitions, including acknowledgment of receipt, identifying the branch and individuals responsible for the response, and a time frame for a substantive response. We also suggest that OIRA develop guidance to all agencies to do likewise, and to also develop more expeditious review systems for all regulatory processes.

Justification: The Administrative Procedure Act requires that each agency "give an interested person the right to petition for the issuance, amendment, or repeal of a rule [5 U.S.C. 553 (e)]. The only regulatory provision made by DOI for such petitions is found in Title 43 of the Code of Federal Regulations but it does little more than state that petitions may be filed and that they will be given "prompt consideration" [43 CFR 14.1 et seq.]. The DOI Manual, unfortunately, contains no provisions for addressing such petitions. In our experience, the petitions are transmitted by the Secretary to the appropriate agency but are seemingly never tracked by the Secretary. Neither the Secretary nor the agency acknowledges receipt. If the internal process entails identifying an individual responsible for addressing the petition, this information is not made known to the petitioner. It takes determination to ascertain if the agency is, in fact, aware of the petition. For this reason, we sent copies of our petitions to the appropriate branches of the U.S. Fish and Wildlife Service. However, we have had nothing but oral communication that the petitions would be considered. The petition described above, pertaining to a CITES regulation, was filed in April 2014, with a copy to then-USFWS Director Dan Ashe. We learned that it would be addressed in the context of a regulatory revision that was planned to be published for comment in 2015, but only because we also asked the USFWS to propose the issue for the CITES agenda for COP17. When we followed up to ask if the USFWS planned to do so, we were told (in July 2015) that the USFWS would address the petition in its next CITES rulemaking.

It is efficient and reasonable to address a petition in the context of an upcoming rulemaking on the same subject, but promptness is still a concern. Past CITES rulemaking processes have been extremely slow. This particular rulemaking was intended to implement changes made by the parties to the Convention in 2013. The prior rulemaking (77 FR 14200) encompassed changes made by the parties at COP14 (held in 2007) and COP15 (held in 2010). The proposed regulation was published in March 2012. The final rule was not published until 2014 (79 FR 32677).

An earlier regulatory revision was pending so long that it had to be re-proposed. A proposed rule was published May 8, 2000 (65 FR 26664). The revisions were never finalized. In April 2006, a new regulatory revision was published (71 FR 20167) that incorporated the revisions proposed six years earlier. That 2006 revision was finalized in August 2007 (72 FR 48401).

We are fully aware that the duration of the regulatory process is not under the control of the agency staffers charged with writing the regulations. We realize that there are multiple layers of supervisory approval required prior to publication of the proposed rule and the final rule. We

realize that understaffing, which has worsened over the past decade, is also a problem. Nonetheless, incorporating a response to a petition into a pending regulatory process seems certain to prevent a "prompt response." Of course, without adequate staffing and without strict deadlines on the "surname" process, it may be unrealistic to expect a prompt response even in a regulatory process that addresses only the petition.

Engage in regular consultation with the regulated community and commit to timely response

Regular communication with the regulated community would promote streamlining of procedures and reduce confusion. It would help establish a common base of understanding or "first principles" upon which subsequent decisions could be made.

Since 1992, we have engaged in discussion with the USFWS about the issuance of guidance to establish limits for scientific collecting of birds under the Migratory Bird Treaty Act. The agency readily acknowledged that data supported the contention that this research practice has no impact on populations of bird species protected under that law, with certain exceptions. The policy was drafted in 1995. Every year, we have asked agency leadership to complete the guidance. Every year, leadership would commit to doing so, but the following year, we would be told that there was a need for more discussion among the regional offices. To the best of our knowledge, the draft was last revised in 2004. Moreover, we have requested the opportunity to review the guidance before it is finalized but it has not been provided to us.

Since 2015, the Division of Migratory Bird Management has apparently been compiling National Standard Operating Procedures (NSOP) for its permit programs. We have asked repeatedly for the opportunity for input. Finally, in late 2015, a staffer shared a draft for one specific permit type (import-export) with us and gave us an opportunity for informal input on several specific questions that seem to be preventing the agency from completing the policy. To the best of our knowledge, this NSOP is not yet complete. This particular branch lost two staffers to retirement and they have not been replaced, so staffing levels undoubtedly account for this situation. Nonetheless, our point here is that the agency should include the regulated community in discussions about such guidance documents. As it currently stands, we have reason to interact only when problems occur, which is not productive in preventing these problems in the first place and imposes yet additional time burdens on the one remaining staffer.

Over the past several years, we have met with staff from the Division of Migratory Bird Management and/or the Assistant Director for Migratory Birds once or twice a year. Each time, we make the same requests because no action has been taken on previous requests. Most of these entail fairly easy tweaks to non-regulatory policy or practice. It would be far more effective to have a regular semi-annual roundtable with a specific action (or explanation why the requested action could not be taken) to be completed by the next semi-annual meeting. Many of these issues could be resolved by adding standard conditions to permits, or by changing existing standard conditions. For instance, permittees are allowed to authorize others to import under their scientific collecting permits but not under import-export permits. This is not a regulatory issue; it is based on a somewhat unclear statement on the permit application. The MBTA import permit does not authorize post-import possession; a separate scientific collecting permit must be obtained.

Conclusion

The ornithological community fully supports the efforts of the Department of the Interior to protect wild bird populations and we accept that doing so necessitates some degree of regulatory burden. We ask that DOI examine its regulations, policies and procedures, and guidance documents to determine if the burden is, in fact, actually contributes to protection of wild birds, and even in that case, if there is a way to reduce that burden without a loss of protection. Given upcoming reductions in resources and staffing, it would also benefit the agency to identify policies and practices that add to their workload without serving to protect wild bird populations.

Sincerely,

Ellen Paul Executive Director

To: aurelia_skipwith@ios.doi.gov[aurelia_skipwith@ios.doi.gov]

From: Shawn Regan

Sent: 2018-07-19T15:27:37-04:00

Importance: Normal

Subject: [EXTERNAL] 2018 PERC Reports - Getting Species Recovery Right

Received: 2018-07-19T15:39:01-04:00

At PERC, we're dedicated to working with conservationists, policymakers, scholars, and journalists to understand the root of environmental conflict and develop innovative solutions.

We're excited to release <u>our newest issue of *PERC Reports*</u>, the magazine of free market environmentalism. This issue explores the challenges of species recovery—and how to provide incentives that can overcome those challenges.

VOLUME 37, NO.1, SUMMER 2018

Featuring the Cover Story:

If a Frog Had Wings, Would It Fly to Louisiana?

Tate Watkins

The Supreme Court prepares to weigh whether habitat must be habitable. Whatever it decides, the Endangered Species Act has to do better—by wildlife and landowners alike.

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Jonathan Wood

How to prevent extinction and promote recovery

A No-Nonsense Approach to Recovering Species

Greg Walcher

How Colorado took endangered
species recovery into its own hands

Hotel California

Brian Yablonski
When wildlife conservation success
becomes bad news

The Elephant Permit in the Room

Catherine E. Semcer
Arbitrary decisions about trophy imports undermine conservation efforts and economic opportunity

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Our mailing address is: 2048 Analysis Drive, Suite A Bozeman MT 59718

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To: Aurelia Skipwith (aurelia_skipwith@ios.doi.gov)[aurelia_skipwith@ios.doi.gov]

From:

Treiser, Raya B. 2018-07-20T11:46:25-04:00 Sent:

Normal Importance:

Subject: [EXTERNAL] Briefing One-Pager Received: 2018-07-20T11:46:42-04:00

WNS Briefing.docx

Dear Aurelia,

Attached please find a one-pager in advance of our meeting on Monday. We look forward to discussing this with you in more detail on Monday.

Best,

Raya

White Nose Syndrome Public-Private Bat Conservation Initiative

NextEra Energy, Inc. July 23, 2018

PROBLEM

White Nose Syndrome (WNS) is spreading rapidly across the U.S. and destroying bat populations. To date, no systemic solution has been implemented to address this affliction, although there are many promising initiatives currently being tested. Incidental Take Permits under the ESA include staggering costs for monitoring the impacts of wind energy facilities (\$5 7 million per project for a minimum term of 30 years). This monitoring gives us data on dead bats but provides no direct benefit for bat species.

NEXTERA ENERGY CAN HELP

- NextEra has a history of deploying its biology teams to successfully study animal populations impacted by its operations and design solutions that increase population size and health:
 - Florida Manatees
 - North American Crocodiles
 - Sea Turtles
- Instead of costly monitoring at wind farms, NextEra has an innovative idea that can use resources wisely to help bats by addressing WNS: Working with conservation groups to advance efforts in combatting WNS through funded research and restoration at known hibernacula asites.
 - The U.S. Fish and Wildlife Service has developed a National Plan and coordinates multiple agencies and working groups focused on WNS monitoring and treatment. They provide funding for these efforts through the Bats for the Future Fund, which made over \$1.5 million in grants available in 2018. Bat Conservation International (BCI) and The Nature Conservancy (TNC) are on the forefront of many of these efforts. NextEra has a good relationship with both organizations.
 - Collaborating and funding of these efforts has the greatest potential to recover the species. Funding and leveraging NextEra Energy's biological and technical expertise can accelerate these initiatives.

NEXTERA ENERGY'S INNOVATIVE IDEA MAXIMIZES CONSERVATION VALUE

NextEra's proposal would maximize the conservation value of ESA mitigation and monitoring dollars. Rather than expend resources on wind farm monitoring that does nothing to enhance conservation, NextEra would collaborate and enhance funding that is dedicated toward restoration and creation of WNS free habitat for bats. This provides the ability to monitor effectiveness of WNS eradication techniques and collect data about living bat populations real time.

To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]
Cc: Scott Cameron[Scott_cameron@ios.doi.gov]

From: Ellen Paul

Sent: 2018-07-23T15:08:26-04:00

Importance: Normal

Subject: [EXTERNAL] Request for resources for USGS Bird Banding Lab

Received: 2018-07-23T15:08:39-04:00

Absolutely! Will be there at 1 p.m., and thanks!

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/23/18 3:06 PM, Skipwith, Aurelia wrote:

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I'm available this Wednesday at either 1 or 2pm. Do either of those times work for you? Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

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It is a rather dry, technical (weedy) list involving some regulatory changes and more procedural changes, both substantive and as to the manner in which the DMBM makes decisions and implements them at a sub-regulatory level, plus some basic management issues such as training. These procedures often result in the inefficient administration of the permits program and additional burden for the research community without any benefit for bird conservation and management

or for practical concerns such as law enforcement. For years, we have asked for reasons for these practices and have received no responses. In the rare instance when we've been given an explanation, it often belies a lack of understanding of other statutes, regulations, and procedures that affect the same transaction. I want to stress that these problems emanate primarily from the regions and that Region 9 seemingly does not have the authority it needs to resolve the problem. I am confident that Dr. Kershner and Dr. Richkus are on-track to address these problems but need support from the USFWS and DOI directorates. It is my understanding that the Solicitor's office is sending someone to the next national permit coordinator's meeting. That's an example of the kind of support they need.

To give you a few examples:

- 1. Some regions have insisted on issuing separate MBTA permits for every import rather than issuing a single permit for all MBTA species (that are not also ESA or CITES) for all countries for the duration of the permit. They insist that the importer amend the permit for each import, despite the fact that they have no basis for denying the permit or the amendment. The question of species and number of specimens or samples is controlled entirely by the country of export. The Lacey Act prohibits imports of wildlife taken in violation of the country of export, so to import, one must have a valid export permit. It is controlled by the import process implemented by the Office of Law Enforcement. These serial amendments are a waste of time for everyone and once the new fee rule is promulgated, it will also be costly because the new rule will (we've been told) impose a cost of \$50 per amendment (there is currently no fee).
- 2. The DMBM has been working on a National Standard Operating Procedure for imports and exports (good!) for over three years (not good). As with most of their procedural standards, it has been hung up on rather minor points raised by the regions. They have also been working on a subregulatory policy for scientific collecting since 1995! As best I know, it was last revised in 2004 but it is still in draft and has never been finalized.
- 3. For some reason, permittees who import under scientific collecting permits with import authority may allow others to use their permits by providing a letter of authorization (good!) but permittees who import under import-export permits are not allowed to do so. Instead, they must list all subpermittees, meaning that each time a subpermittee leaves the lab or institution or a new person joins the lab or institution, an amendment is needed. This is a waste of time for the permits staff and for the researchers and, when fees are eventually imposed on amendments, it will become costly. It is the exact same transaction but the procedures differ for no apparent reason.

4. Exemptions to scientific collecting permit requirement - Over the years we have been told informally that permits re not needed for owl pellets, cloacal samples, feces, synthetic DNA. However, to the best of our knowledge, no written policy document exists. This results in uncertainty. Researchers need to contact permit staff to ask these questions. A written policy document would save everyone time. It could and should be incorporated into a National Standard Operating Procedure for scientific collecting permits, which could and should also include the policy for scientific collecting.

In addition to numerous other MBTA permit issues, there are also concerns about CITES permits. For instance, we filed a petition in 2014 asking the USFWS to suspend or revoke the "validation" requirement for scientific imports. This requirement - which of course emanates from a resolution adopted at a Conference of the Parties - has proved to be virtually unworkable and has jeopardized any number of scientific imports. The DMA was to address the petition in its revision of the CITES regulations that followed COP16 (2013) but no regulation was ever proposed. It was then to be addressed in the revision that followed COP17 (2016). Of course, that regulatory process was put on hold following the election. Shortly after the election, we wrote to Neomi Rao at OIRA and to Secretary Zinke, asking that this regulatory revision be allowed to proceed and based on the most recent regulatory agenda, it appears to be moving forward. Oversight would be greatly appreciated.

- We also have a petition pending to the Office of Law Enforcement, again, since 2014. We understand that OLE is waiting until its implementation of the Customs and Border Protection Automated Commercial Environment (ACE) process is complete as it will necessitate a number of regulatory changes. I would be remiss in not lauding Sheila Einsweiler who frankly deserves DOI's highest employee award not only for her absolutely colossal work over at least a decade on this enormously challenging process, but also for her outreach to the community on this and many other law enforcement matters over the past two decades.
- Finally, there is one major issue involving the National Park Service that we worked on for years and had thought was resolved only to have the NPS renege at the 11th hour. They had been talking about a press conference for the formal signing of an agreement and then all of a sudden and for no apparent reason, they simply walked away. The issue involves specimen ownership. We had reached agreement calling for the right of permanent possession with a number of other provisions that were beneficial to both the NPS and the museum community. The draft agreement was essentially the same as that entered into between NPS and the National Museum of Natural History, so we know the terms were acceptable to the NPS. I wonder if you might be interested in discussing that issue, too?

I won't burden you now with other examples. I am very grateful to you for your interest and hope to meet with you in the near future. I am sure your schedule is very tight but I can meet with you early in the morning (I am a birder; we are always up before dawn and I am at work by 7 a.m.) or in the evening, or at any time that works for you.

Sincerely,

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/18/18 6:53 PM, Skipwith, Aurelia wrote:

Ellen.

It's great to hear wonderful news about people in the FWS programs. I will pass your comments to them.

It would be helpful to know what topics you'd like to discuss. Could you please elaborate? Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

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To: Skipwith, Aurelia[aurelia_skipwith@ios.doi.gov]
Cc: Scott Cameron[Scott_cameron@ios.doi.gov]

From: Ellen Paul

Sent: 2018-07-23T15:29:23-04:00

Importance: Normal

Subject: [EXTERNAL] Request for resources for USGS Bird Banding Lab

Received: 2018-07-23T15:29:36-04:00

I'll be the only one.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
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On 7/23/18 3:23 PM, Skipwith, Aurelia wrote:

Could you please let me know who will be attending with you? Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

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1. Some regions have insisted on issuing separate MBTA permits for every import

rather than issuing a single permit for all MBTA species (that are not also ESA or CITES) for all countries for the duration of the permit. They insist that the importer amend the permit for each import, despite the fact that they have no basis for denying the permit or the amendment. The question of species and number of specimens or samples is controlled entirely by the country of export. The Lacey Act prohibits imports of wildlife taken in violation of the country of export, so to import, one must have a valid export permit. It is controlled by the import process implemented by the Office of Law Enforcement. These serial amendments are a waste of time for everyone and once the new fee rule is promulgated, it will also be costly because the new rule will (we've been told) impose a cost of \$50 per amendment (there is currently no fee).

- 2. The DMBM has been working on a National Standard Operating Procedure for imports and exports (good!) for over three years (not good). As with most of their procedural standards, it has been hung up on rather minor points raised by the regions. They have also been working on a subregulatory policy for scientific collecting since 1995! As best I know, it was last revised in 2004 but it is still in draft and has never been finalized.
- 3. For some reason, permittees who import under scientific collecting permits with import authority may allow others to use their permits by providing a letter of authorization (good!) but permittees who import under import-export permits are not allowed to do so. Instead, they must list all subpermittees, meaning that each time a subpermittee leaves the lab or institution or a new person joins the lab or institution, an amendment is needed. This is a waste of time for the permits staff and for the researchers and, when fees are eventually imposed on amendments, it will become costly. It is the exact same transaction but the procedures differ for no apparent reason.
- 4. Exemptions to scientific collecting permit requirement Over the years we have been told informally that permits re not needed for owl pellets, cloacal samples, feces, synthetic DNA. However, to the best of our knowledge, no written policy document exists. This results in uncertainty. Researchers need to contact permit staff to ask these questions. A written policy document would save everyone time. It could and should be incorporated into a National Standard Operating Procedure for scientific collecting permits, which could and should also include the policy for scientific collecting.

In addition to numerous other MBTA permit issues, there are also concerns about CITES permits. For instance, we filed a petition in 2014 asking the USFWS to suspend or revoke the "validation" requirement for scientific imports. This requirement - which of course emanates from a resolution adopted at a Conference of the Parties - has proved to be virtually unworkable and has jeopardized any number of scientific imports. The DMA was to address the petition in its revision of the CITES regulations that followed COP16 (2013) but no regulation was ever proposed. It was then to be addressed in the revision that followed COP17 (2016). Of course, that regulatory process was put on hold following the election. Shortly after the election, we wrote to Neomi Rao at OIRA and to Secretary Zinke, asking that this regulatory revision be allowed to proceed and based on the most recent regulatory agenda, it appears to be moving forward. Oversight would be greatly appreciated.

We also have a petition pending to the Office of Law Enforcement, again, since 2014. We understand that OLE is waiting until its implementation of the Customs and Border Protection Automated Commercial Environment (ACE) process is complete as it will necessitate a number of regulatory changes. I would be remiss in not lauding Sheila Einsweiler who frankly deserves DOI's highest employee award not only for her absolutely colossal work over at least a decade on this enormously challenging process, but also for her outreach to the community on this and many other law enforcement matters over the past two decades.

Finally, there is one major issue involving the National Park Service that we worked on for years and had thought was resolved only to have the NPS renege at the 11th hour. They had been talking about a press conference for the formal signing of an agreement and then all of a sudden and for no apparent reason, they simply walked away. The issue involves specimen ownership. We had reached agreement calling for the right of permanent possession with a number of other provisions that were beneficial to both the NPS and the museum community. The draft agreement was essentially the same as that entered into between NPS and the National Museum of Natural History, so we know the terms were acceptable to the NPS. I wonder if you might be interested in discussing that issue, too?

I won't burden you now with other examples. I am very grateful to you for your interest and hope to meet with you in the near future. I am sure your schedule is very tight but I can meet with you early in the morning (I am a birder; we are always up before dawn and I am at work by 7 a.m.) or in the evening, or at any time that works for

Sincerely,

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/18/18 6:53 PM, Skipwith, Aurelia wrote:

Ellen,

It's great to hear wonderful news about people in the FWS programs. I will pass your comments to them.

It would be helpful to know what topics you'd like to discuss. Could you please elaborate? Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

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On Tue, Jul 17, 2018 at 3:08 PM, Ellen Paul < (b) (6) wrote:

Thank you very much! I actually realized my error after I wrote to you. I had sent you an earlier letter pertaining to the U.S. Fish and Wildlife Service, Division of Migratory Bird Management. When I wrote the letter pertaining to the Bird Banding Lab, I simply copied the header. Of course I know it should have been Mr. Petty and Ms. Travnicek and I have now re-directed the letter to them.

However, if at all possible, I would very much like to meet with you regarding the Division of Migratory Bird
Management. I was so pleased with their plans to move forward with a number of reforms we have been requesting for many years and I would like to know what we can do to encourage your office to support those efforts. There are two terrific people handling that program - Eric Kershner and Ken Richkus - and I hope they get all the support and resource they need.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

On 7/17/18 3:01 PM, Skipwith, Aurelia wrote:

Ellen,
Let me look into this and get back to you. Thank you.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Tue, Jul 17, 2018 at 6:46 AM, Ellen Paul

(b) (6) wrote:

Dear Ms. Skipwith,

I apologize for failing to attach the document.

I appealed directly to you and to Mr. Cameron because we have reason to

think that USGS leadership will not be responsive.

Ellen

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

To: 'aurelia_skipwith@ios.doi.gov'[aurelia_skipwith@ios.doi.gov]

From: Theresa Carroll

Sent: 2018-07-27T17:22:24-04:00

Importance: Normal

Subject: [EXTERNAL] FW: Skookumchuck HCP check in

Received: 2018-07-27T17:22:33-04:00

Hi Aurelia,

This is the email we just spoke about.

Theresa Carroll

Director, Permitting, Americas

C 510 828 3714 | O 303 439 4200

theresa.carroll@res-group.com | http://www.res-group.com



From: Thompson, Brad [mailto:brad_thompson@fws.gov]

Sent: Thursday, July 26, 2018 8:29 AM

To: Theresa Carroll <Theresa.Carroll@res-group.com>

Cc: Sean Bell <Sean.Bell@res-group.com>; Eric Rickerson <eric_rickerson@fws.gov>

Subject: Re: Skookumchuck HCP check in

Hi Theresa,

Thank you for your email to Eric Rickerson on Monday inviting a discussion to resolve bald eagle mitigation issues for the Skookumchuck HCP. Service staff has consulted with our regional and national policy leads, and the DOI Solicitor's Office, in order to provide RES with technical assistance regarding bald eagle mitigation. Our goal in providing this assistance is to be both responsive to your concerns, and to be consistent with applicable law and Service policies. We are hopeful that the following information, combined with our upcoming call, will provide RES with the information it needs in order to make informed decision on how best to proceed.

As you are aware, bald and golden eagles are not listed as threatened or endangered. Therefore, incidental take of eagles can either be permitted through the Bald and Golden Eagle Protection Act (BGEPA) or Section 10 of the ESA. Permit applicants may to choose the permitting process they prefer. Once an applicant chooses a permitting process, all applicable laws, regulations, and government processes associated with that chosen path apply.

BGEPA Option

RES asserts that the predicted take of bald eagles is lower than the 5-percent Local Area Population (LAP) benchmark for compensatory mitigation in the Final Eagle Rule. Assuming that the Service ultimately concurs in this assessment, it is likely that no mitigation would be required for permitted incidental take of bald eagles under BGEPA. Should RES choose to remove bald eagles as covered species in its HCP, and pursue a BGEPA permit, the draft EIS would be modified to address both the proposed ESA Section 10 permit covering marbled murrelets and golden eagles, and the BEGEPA permit for bald eagles. We do not anticipate

any significant administrative delay in processing the take authorization request should RES choose to pursue this dual permit approach.

ESA Section 10 Option

Should RES continue to voluntarily include eagles as a covered species in the HCP, consistent with Section 10 permit issuance criteria, RES would be required to minimize and mitigate the impacts of the taking of bald eagles to the maximum extent practicable. If a permit is ultimately issued by the Service, RES would be entitled to a "no surprises assurance" for bald eagles. Pursuant to this assurance, if during the 30-year term of the permit "unforeseen circumstances" arise, and RES is implementing the terms and conditions of the HCP, permit, and other associated documents in good faith, the Service would not require the commitment of additional land, water or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed to in the HCP. The same level of assurance is not provided under an BGEPA permit.

There is an array of mitigation options that could be acceptable for meeting the HCP Section 10 permit issuance criteria. Options may include, without limitation, retrofitting electrical poles, removal of livestock carcasses, or the use of an in-lieu fee. Since our preliminary discussion of mitigation with RES last week, we've refined our thinking on mitigation needs, and we look forward to talking with you.

In closing, I appreciate your recent invitation to set up a call to discuss options regarding the mitigation items still needing attention. Staff from my office and the Solicitor's Officer will respond to the Doodle poll. We look forward to finding a resolution of remaining issues, and meeting our shared objective of keeping your project on its tight timeline for completion. Feel free to contact me directly if you have any additional questions or require further discussions with leadership in our office.

Thank you, Brad Thompson

From: Theresa Carroll < Theresa. Carroll@res-group.com>

Date: Mon, Jul 23, 2018 at 4:50 PM

Subject: [EXTERNAL] Skookumchuck HCP check in To: "eric rickerson@fws.gov" <eric rickerson@fws.gov>

Cc: Sean Bell <Sean.Bell@res-group.com>

Hi Eric,

I wanted to check in now that the Draft HCP has been submitted within the NEPA timeline we agreed to, with the full mutual agreement to resolve the MAMU mitigation and take estimate pieces before the document is released for public review in September. We also spoke with the eagle team and Mark last week regarding mitigating for bald eagles in the HCP. I believe you are aware of the discussions we've been having about this request within the HCP and ESA regulatory framework. We also understand it is a decision being made at the national level; therefore, it makes sense to try to resolve the issue at DC while the document is being finalized.

We appreciate that Mark is being proactive and trying to move it forward within the reach of his authority; however,

the monetary and precedent implications of requiring something we don't think is legally supported makes it worth the extra effort. We are happy to discuss further with your team; however, I wanted to give you a heads-up before I contact the DOI and request a meeting. If you would like to meet or discuss this further, please let me know.

Thanks,

Theresa

Theresa Carroll

Director, Permitting, Americas

11101 W. 120th Ave. Suite 400 Broomfield, CO 80021 C 510 828 3714 | O 303 439 4200

theresa.carroll@res-group.com | http://www.res-group.com



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--

Brad Thompson, Ph.D
Deputy State Supervisor
Washington Fish and Wildlife Office
US Fish and Wildlife Service
510 Desmond Drive SE
Lacey, WA 98503
360-753-4652
(360) 790-8187 (cell)

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To: aurelia_skipwith@ios.doi.gov[aurelia_skipwith@ios.doi.gov]

From: Kurt Schwarz

Sent: 2018-07-28T13:57:40-04:00

Importance: Normal

Subject: Re: [EXTERNAL] Please Keep Eastern Neck National Wildlife Refuge Open

Received: 2018-07-28T13:57:49-04:00

Thank you. I have alerted the birding community, posting two the two MD Birding Facebook Pages, the MOS FB Page, and email to the mdbirding.com Google Group. We much appreciate your letting us know!

Kurt Schwarz

(b)(6)

----Original Message-----

From: Skipwith, Aurelia <aurelia skipwith@ios.doi.gov>

To: Kurt Schwarz

(5)(6)

Sent: Sat, Jul 28, 2018 11:27 am

Subject: Re: [EXTERNAL] Please Keep Eastern Neck National Wildlife Refuge Open

Kurt,

The Eastern Neck NWR will stay open and public access for hunting, fishing, bird watching, and wildlife watching and other wildlife dependent uses, but it will not be staffed. If you need further information, let me know.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208-5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Tue, Jul 17, 2018 at 4:00 PM, Kurt Schwarz

(b)(6)

wrote:

Dear Assistant Secretary Skipwith:

The Maryland Ornithological Society is shocked to learn that Eastern Neck National Wildlife Refuge may be closed because it lacks a Refuge Manager. Eastern Neck is important to the Maryland Birding Community, as it is home to breeding, wintering, and migratory bird species. It has also hosted such rarities as Forktailed Flycatcher and Pacific Loon. This refuge is a big tourism draw for Chestertown and Rock Hall, and our members visit it often. The spectacle of Tundra Swans in the colder months is well worth the trip. Eastern Neck is one of only two National Wildlife Refuges open to the public on Maryland's Eastern Shore, and the entire Maryland birding community wishes to keep it open, not only for their benefit, but to provide outdoor recreation opportunities to the entire public. We ask that you make the new manager position at Eastern neck a budget priority and ensure the USFWS does not close the refuge. The favor of a reply is requested.

Sincerely,

Kurt R, Schwarz Conservation Chair Maryland Ornithological Society www.mdbirds.org **To:** 'aurelia_skipwith@ios.doi.gov'[aurelia_skipwith@ios.doi.gov]

Cc: Sean Bell[Sean.Bell@res-group.com]

From: Theresa Carroll

Sent: 2018-07-30T16:41:20-04:00

Importance: Normal

Subject: [EXTERNAL] FW: Skookumchuck - bald eagle mitigation

Received: 2018-07-30T16:41:28-04:00

Aurelia,

Thank you again for your time on Friday. Please see below for the emails that show background on the bald eagle issue we discussed. Brooke also provided clarifying notes within the text. I will also forward another email.

Thanks! Theresa

Theresa Carroll

Director, Permitting, Americas

C 510 828 3714 | O 303 439 4200

theresa.carroll@res-group.com | http://www.res-group.com



From: Wahlberg, Brooke M.

Sent: Tuesday, July 03, 2018 11:00 AM

To: Jeffrey Bernstein < jeff.bernstein@sol.doi.gov>; Kline, Philip < philip.kline@sol.doi.gov>

Cc: Theresa Carroll < Theresa.Carroll@res-group.com >; mark ostwald@fws.gov; Brandt-Erichsen, Svend < sbrandterichsen@nossaman.com >; david_leal@fws.gov; matthew stuber@fws.gov; Corinne

Lytle-Bonine <<u>clytle-bonine@chambersgroupinc.com</u>>

Subject: Skookumchuck - bald eagle mitigation

Hi Jeff and Philip,

As a follow-up to our call on Friday, I wanted to poll you for your availability and summarize our position as it pertains to bald eagle mitigation where bald eagles are covered under an HCP. In sum, electing to include bald eagles in an HCP is expressly allowed by regulation and directs to the BGEPA preservation standard, and the BGEPA permit rule has a set of "required determinations" in which the mitigation requirements are clear. Any HCP Handbook language that could be read to the contrary does not override the regulatory language nor the limits of the scope of the ESA. Where the HCP Handbook discusses covering unlisted species, that discussion is in the context of species that have the potential to be listed. Some of the relevant language and explanation supporting this position is provided below:

• The Endangered Species Act (ESA) governs actions taken involving those species that have been listed in accordance with ESA section 4 or are in the process of being considered in accordance with ESA section 4. The ESA's take prohibition does not extend beyond those categories of species. 16 U.S.C. 1538. Nor does ESA section 7

require consultation for species not listed under or in the process of being listed under ESA section 4. 16 U.S.C. 1536.

- The USFWS delisted the bald eagle in 2007. Therefore the bald eagle no longer falls within the jurisdiction of the ESA.
- The USFWS promulgated a regulation 50 CFR 22.11 that expressly allows for eagles to be covered through permits issued under the ESA. It states:

A permit that covers take of bald eagles or golden eagles under 50 CFR part 17 for purposes of providing prospective or current ESA authorization constitutes a valid permit issued under this part for any take authorized under the permit issued under part 17 as long as the permittee is in full compliance with the terms and conditions of the permit issued under part 17. The provisions of part 17 that originally applied will apply for purposes of the Eagle Act authorization, except that the criterion for revocation of the permit is that the activity is incompatible with the preservation of the bald eagle or the golden eagle rather than inconsistent with the criterion set forth in 16 U.S.C. 1539(a)(2)(B)(iv). (emphasis added).

- The preamble to the December 16, 2016 revisions to the Eagle Rule (50 CFR 22.26) similarly addresses covering eagles under HCPs and states:
 - "... in order for the Service to confer Eagle Act take coverage through the ESA section 10 permit program, ESA HCPs must meet the Eagle Act standards for permitting, including mitigation requirements." 81 Fed. Reg. 91494, 91538 (Dec. 16, 2016).
- [AURELIA Some additional language from the December 2016 eagle rule preamble that helps explain the differences between the ESA standard and the BGEPA standard: "The ESA and the Eagle Act have different conservation standards and purposes. While the ESA has as its bottom line that permitted take must not more than negligibly contribute to the extirpation of a species, the Service interprets the Eagle Act's preservation standard, even prior to the amendments to our regulations being made by this final rule, as intended to maintain sustainable population levels throughout the range of each species." P. 91513.]
- Along with the 2016 eagle rule revisions, the Service also released a population report that showed that bald eagle populations are healthy enough that compensatory mitigation would not be required to sustain their population until they reach certain thresholds (which I explain a bit further in a note flagged for you below).
- We understand the "Eagle Act standards for permitting" to be the "Required Determinations" laid out at 50 CFR 22.26(f), which the USFWS must make before issuing an eagle permit. These Required Determinations include:

- "(5) The applicant has applied all appropriate and practicable compensatory mitigation measures, when required, pursuant to paragraph (c) of this section, to compensate for remaining unavoidable."
- The referenced paragraph (c) clarifies that compensatory mitigation is required only in certain instances. [AURELIA one of these instances include where the permittees authorized take combined with the other authorized take within the "local area" (the local area an 86 mile radius drawn around the project) equals greater than %5 of the location area population. Our requested take is well below the 5% threshold and USFWS has given no indication that other authorized take within the local area would push us over the 5% threshold. Additionally, the other instances triggering mitigation should not be an issue here. So far, USFWS has based their position solely on the inclusion of eagles in the same permitting process as an ESA-listed species.
- We understand that the basis for USFWS position -- that the ESA standard should be applied to the coverage of bald eagles in an HCP -- is the following statement in their HCP Handbook: "A non-listed species covered in the HCP must be treated as if it were already listed and all conservation measures described in the HCP for that species must be fully implemented. If it is adequately addressed in the HCP, and we determine that section 10 issuance criteria have been met for the species, it is included on the incidental take permit and becomes effective if and when the species is listed." HCP Handbook p. 15-7. Note that this passage originates in a very general section related to ESA section 7. However, the final clause of the statement "becomes effective if and when the species is listed" indicates that it is intended to apply to species that are not currently listed but may become listed in the future. That is not the reason for including bald eagles within an HCP. We understand that this language is derived from a definition in 50 CFR 17.3, however, that definition was promulgated in 1998 prior to the availability of an eagle permit [and when bald eagles were listed under the ESA]. Again, this definition allowed for applicants to include and obtain coverage for species that they anticipate will be listed. This is not the case here, and a narrower regulation has since been promulgated that specifically addresses the coverage of eagles in HCPs.
- Another place the USFWS may point to when explaining its position is language in the eagle-specific section of the HCP Handbook (7.4.2): "Applicants can choose to include bald and golden eagles on the incidental take permit for an HCP. Doing so also confers take authorization under the BGEPA (50 CFR 22.11) without the need for a separate permit. However, when making permit decisions, FWS must consider whether the permit issuance criteria under both ESA and BGEPA will be met by the conservation measures included in the HCP." HCP Handbook p. 7-8 (emphasis added). This language does not contradict our position when read in the larger context of 50 CFR 22.11, the Eagle Rule preamble language, and the limitations of the USFWS's jurisdiction under the ESA. It simply re-emphasizes that the USFWS needs to consider two different sets of issuance criteria when evaluating an HCP where eagles are included.

• The HCP Handbook is guidance and does not extend the USFWS's ESA jurisdiction beyond its statutory constraints. The USFWS cannot change the requirements of the eagle permitting regulations through its HCP Handbook. The ESA does not grant the USFWS legal authority to impose HCP requirements that are unrelated to listed species, other than species an applicant seeks to cover because they may become listed in the future. Incidental take of eagles is addressed through an HCP for administrative convenience and to improve coordination of wildlife conservation measures across programs, not out of concern that bald eagles may once again be listed in the future.

We look forward to further discussion and appreciate your willingness to continue the conversation on this. Please do let us know your availability so that we can set a call and have a happy 4th.

Brooke

Brooke M. Wahlberg

Attorney at Law

NOSSAMAN LLP

816 Congress Avenue, Suite 970

Austin, TX 78701

bwahlberg@nossaman.com

T 512.651.0660 F 512.651.0670

D 512.813.7941



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advance for your cooperation.

To: 'aurelia_skipwith@ios.doi.gov'[aurelia_skipwith@ios.doi.gov]

Cc: Sean Bell[Sean.Bell@res-group.com]

From: Theresa Carroll

Sent: 2018-07-30T16:45:36-04:00

Importance: Normal

Subject: [EXTERNAL] FW: Skookumchuck Question **Received:** 2018-07-30T16:45:47-04:00

Hi Aurelia,

Here is the second email I mentioned. Also, after our call on Friday, I had a call with the Lacey Field Office, and we discussed a solution that might work for the project. I'm going to discuss further with them today, and I will let you know how that progresses. Perhaps we can come to a positive solution with the Field and Regional offices to keep from adding to your workload, and instead have a document that you can review in just a short time.

Thank you! Theresa

Theresa Carroll

Director, Permitting, Americas

C 510 828 3714 | O 303 439 4200

theresa.carroll@res-group.com | http://www.res-group.com



From: Wahlberg, Brooke M.

Sent: Tuesday, July 10, 2018 9:50 PM

To: Bernstein, Jeffrey <jeff.bernstein@sol.doi.gov>

Subject: RE: Skookumchuck Question

Hi Jeff,

My answer would be that it's a separate question. There's specific language in the eagle rule related to which issuance criteria applies when seeking eagle coverage under an HCP. The eagle rule is silent with respect to no surprises and coverage under an HCP. Regardless, the "no surprises" rules should apply to the ESA species covered by the HCP (It's unclear from your question below whether you are questioning the applicability of no surprises as a blanket question or just specific to eagles). If the USFWS takes the position that no surprises rule would not extend to the eagle coverage, the eagle rule has other provisions very similar to no surprises that occurs in five-year increments. The eagle rule provision limits what the USFWS can request over the course of the five-year check-ins if the permittee remains within its eagle take limit, is in compliance with its permit, or if the adaptive management program prescribes a response. The HCP's monitoring and adaptive management program have been designed to align with the eagle rule framework. The relevant "eagle no surprises" language from the eagle rule is pasted below (I've added emphasis that gets to the heart of the provision) and should be applicable to the eagle authorization.

50 CFR 22.26(c)(iv)

Actions to be taken based on the permit review.

- (A) In consultation with the permittee, the Service will update fatality predictions, authorized take levels and compensatory mitigation for future years, taking into account the observed levels of take based on approved protocols for monitoring and estimating total take, and, if applicable, accounting for changes in operations or permit conditions pursuant to the adaptive management measures specified in the permit or made pursuant to paragraphs (c)(7)(iv)(B) through (D) of this section.
- (B) If authorized take levels for the period of review are exceeded in a manner or to a degree not addressed in the adaptive management conditions of the permit, based on the observed levels of take using approved protocols for monitoring and estimating total take, the Service may require additional actions including but not limited to:
- (1) Adding, removing, or adjusting avoidance, minimization, or compensatory mitigation measures;
- (2) Modifying adaptive management conditions;
- (3) Modifying monitoring requirements; and
- (4) Suspending or revoking the permit in accordance with part 13 of this subchapter B.
- (C) If the observed levels of take, using approved protocols for monitoring and estimating total take, are below the authorized take levels for the period of review, the Service will proportionately revise the amount of compensatory mitigation required for the next period of review, including crediting excess compensatory mitigation already provided by applying it to the next period of review.
- (D) Provided the permittee implements all required actions and remains compliant with the terms and conditions of the permit, no other action is required. However, with consent of the permittee, the Service may make additional changes to a permit, including appropriate modifications to avoidance and/or minimization measures or monitoring requirements. If measures are adopted that have been shown to be effective in reducing risk to eagles, appropriate adjustments will be made in fatality predictions, take estimates, and compensatory mitigation.

Hopefully that answers your question, but please feel free to reach out if it doesn't.

Thanks for continuing to look at this.

Brooke

From: Bernstein, Jeffrey <jeff.bernstein@sol.doi.gov>

Sent: Tuesday, July 10, 2018 12:11 PM

To: Wahlberg, Brooke M. <bwahlberg@nossaman.com>

Subject: Skookumchuck Question

Hi Brooke - I'm preparing for our call and I have a question. Does your client expect to get HCP no surprises assurances if it does not provide mitigation for bald eagles? Thanks - Jeff

Jeff Bernstein

Attorney-Advisor
U.S. Department of the Interior
Office of the Solicitor
503-231-2355

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To: Aurelia Skipwith[aurelia_skipwith@ios.doi.gov]

From: Ellen Paul

Sent: 2018-07-31T16:12:04-04:00

Importance: Normal

Subject: [EXTERNAL] Thanks again, and follow-ups **Received:** 2018-07-31T16:12:24-04:00

Validation petition-refiled2017.pdf

Petition-Part 14.pdf

Permanent custody agreement-NPS.docx

Dear Aurelia,

I'm so glad I finally had a chance to meet you and I'm very grateful for your time and attention to our concerns.

I thought it might be helpful to you to see the CITES petition we filed in 2014, along with the Part 14 Petition we filed in 2014. Again, I know these are very weedy, technical matters that are normally handled within the Service and certainly not at the Secretariat's level. I just thought you might want to see what we had filed.

In a similar vein, I am sending a copy of the agreement reached between the National Museum of Natural History and the NPS some years ago. As I told you, the agreement that we then "accepted" on behalf of any non-federal museum that though it best suited their needs over the existing repository agreements with their onerous conditions, was identical except as to the pronouns. The individual tasked by then-NPS chief John Jarvis visited one of the museums slated to pilot this new relationship and later wrote, "I enjoyed meeting you yesterday, and am encouraged about the opportunity for the National Park Service to enter into a collections agreement patterned after the NPS/Smithsonian agreement." And then, without explanation, the NPS simply reversed course and left things where they were 30 years ago.

I am looking forward to having more opportunities to meet with you. I am planning a scientific conference at the University of Maryland Eastern Shore which was selected because it is an HBCU and we are planning a wonderful "pathways" program to introduce the students in the UMES Natural Resources program to graduate school options and career pathways, to take place in November 2019. Our tentative speaker list includes Jerome Ford and Benjamin Tuggle (no invitations have been issued yet). Is this something you might be interested in doing?

Sincerely,

Ellen

--

Ellen Paul
Executive Director
Ornithological Council
Phone (301) 986 8568
Providing Scientific Information about Birds

GENERAL AGREEMENT between

National Park Service and [Name of Museum or Institution] for Custodianship of National Park Service Natural History Collections

I. Introduction

This Agreement, effective as of the date of the last approving signature, between the National Park Service (NPS) and the MUSEUM/INSTITUTION ("Effective Date"), conveys to the MUSEUM/INSTITUTION custodial responsibilities as more fully set forth herein, while retaining for NPS ownership responsibilities for NPS natural history specimens and collections ("NPS collections") including those covered by this Agreement ("Collections") and copies of associated documentation (e.g., field notes, databases, maps, photographs and other related materials).

II. Objectives

- A. To provide increased value to the American public by expanding access to information about natural history specimens from units of the National Park System ("NPS units") and related projects and using the resulting information to inform science, NPS resource management practices and stewardship responsibilities, education, public interpretation programs, and benefits sharing, and to enhance the biological and geographical diversity represented in MUSEUM/INSTITUTION collections; and
- B. To enable the MUSEUM/INSTITUTION to assume full and permanent custodial responsibility for the Collections; and
- C. To enable NPS to retain ownership of the Collections to carry out NPS's legal and policy requirements for management of park and museum resources.

III. Scope

This Agreement covers Collections and copies of associated records that NPS provides to MUSEUM/INSTITUTION for custodial purposes on or after the Effective Date of this Agreement. Individual items within the Collections will be referred to as Specimens in this Agreement. The Collections are limited to biological, paleontological, and geological Specimens collected from NPS units and permanently retained in NPS museum collections. This Agreement excludes collections of an archeological, anthropological or historical nature, but may be amended in the future to include such collections upon mutual agreement of the parties. For NPS collections collected prior to the Effective Date or that are covered by existing loan agreements or other arrangements between NPS and MUSEUM/INSTITUTION, either party may submit a written proposal to the other party to cover such NPS collections under this Agreement, and, if deemed mutually acceptable, such NPS collections will become Collections.

IV. Legal Authorities

- A. NPS is authorized to enter into this Agreement pursuant to the authority contained in the National Park Service Organic Act, 16 USC Section 1-4, the National Parks Omnibus Management Act of 1998, 16 USC Sections 5931-5932 and 5934-5936, and Management of Museum Properties Act, 16 USC Section 18f, 18f-2, and 18f-3.
- B. MUSEUM/INSTITUTION is authorized to enter this Agreement pursuant to the laws of the State of New York under which it was incorporated.

V. Responsibilities for Implementing the Agreement

- A. MUSEUM/INSTITUTION Responsibilities. To promote the objectives of this Agreement, the MUSEUM/INSTITUTION will:
 - 1. Acquisition

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- a. Where feasible, consult with NPS and NPS permittees early in the permitting and collecting processes to identify possible NPS collections for coverage by this Agreement;
- b. Review NPS collections offered to MUSEUM/INSTITUTION to identify NPS collections suitable for coverage under the terms of this Agreement, such review to include identifying NPS collections for MUSEUM/INSTITUTION to retain as Collections and culling NPS collections that MUSEUM/INSTITUTION determines to be of no scientific value or duplicates, with the latter NPS collections to be destroyed or returned to NPS, in NPS's discretion;
- Provide NPS, park staff and permittees with MUSEUM/INSTITUTION metadata standards for preparing, labeling and databasing the Collections to facilitate incorporation of metadata into MUSEUM/INSTITUTION collections databases;
- d. Assume full custodial responsibility for the Collections subject to the collections management and research policies of the MUSEUM/INSTITUTION, the National Museum of Natural History or other MUSEUM/INSTITUTION collecting unit;
- e. Import Specimen catalog metadata provided by NPS into MUSEUM/INSTITUTION collections management databases, to ensure that the Collections may be tracked and located;
- f. For NPS collections that may not have been prepared, labeled or cataloged in conformance with NPS's policy and procedures and which MUSEUM/INSTITUTION requests to be included in the Collections, NPS will approve such requests within thirty (30) days unless NPS provides compelling reasons, unrelated to the manner in which the NPS collections have been prepared, labeled or cataloged, to deny such requests. Upon NPS approval, the Collections will be processed, cataloged and labeled by MUSEUM/INSTITUTION, subject to NPS's right thereafter to catalog and add NPS labels;
- g. Periodically provide NPS with updated catalog data on Collections digitally formatted to NPS specifications to facilitate import to NPS collection management databases;

2. Use

- For researchers and users of the Collections on-site at the MUSEUM/INSTITUTION, include notice of the terms of use set forth in the Appendix;
- Lend Collections to NPS and third parties in accordance with MUSEUM/INSTITUTION loan practices, which will be modified for NPS Collections to include the terms of use set forth in the Appendix;
- c. NPS shall be a beneficiary of the terms of use.

Reporting

- a. Insofar as MUSEUM/INSTITUTION conducts cyclical inventories that include Collections, provide NPS with an electronic copy of inventory results, except that NPS understands that MUSEUM/INSTITUTION does not inventory some invertebrates that are small, numerous in quantity and species, and poorly known except for holotypes and other Specimens of high scientific value;
- b. Provide NPS with an annual electronic report of transactions involving the Collections generated from existing MUSEUM/INSTITUTION collections database information;
- c. Respond to public, Congressional or other third party requests for information about the Collections in accordance with applicable law and MUSEUM/INSTITUTION records disclosure policy, provided that if such request originates with NPS or its Inspector General and compliance would involve a significant commitment of MUSEUM/INSTITUTION time and resources, NPS agrees to accept responsibility to comply with such request and provide necessary support.

B. NPS Responsibilities. To promote the objectives of this Agreement, NPS will:

1. Acquisition

- a. Where feasible, consult with MUSEUM/INSTITUTION and NPS permittees early in the
 permitting and collecting processes to identify possible NPS collections for coverage by this
 Agreement;
- b. Where an MUSEUM/INSTITUTION unit has agreed to assume custodial responsibility for the Collections, advise NPS permittee and park to identify MUSEUM/INSTITUTION as the repository in collecting permits or park employee study plans;
- c. To the extent feasible, offer MUSEUM/INSTITUTION the apportunity to review NPS collections proposed for coverage by this Agreement in advance to enable MUSEUM/INSTITUTION to make informed decisions about whether to accept all, some, or none of the NPS collections offered;
- d. Notify MUSEUM/INSTITUTION in advance if a Collection from an identified NPS accession must be maintained together within the MUSEUM/INSTITUTION so that MUSEUM/INSTITUTION can comply with such condition; otherwise MUSEUM/INSTITUTION may, at its discretion, cull the Collection and return the non-selected NPS collections to NPS or its designee or, in NPS's discretion, destroy them;
- e. Prepare, label and catalog the Specimens according to NPS policy and procedures; export catalog metadata digitally formatted to MUSEUM/INSTITUTION specifications for incorporation into MUSEUM/INSTITUTION collection management databases; and consultation with MUSEUM/INSTITUTION on Collections that are not prepared, labeled and cataloged to NPS specification as set forth in Section V(A)(1)(f) above.

2. Use and Reporting

- a. Require that NPS staff provide credit to NPS and MUSEUM/INSTITUTION when NPS staff references the Collections or their metadata in print or digital publications.
- Accept responsibility, as may be needed, to comply with NPS record-keeping or reporting requirements imposed by law, court order, Inspector General, Congress, or other mandate that exceed the MUSEUM/INSTITUTION responsibilities identified in this Agreement and provide necessary support to MUSEUM/INSTITUTION to accomplish any such requirements;

3. Tracking

Use the NPS loan system, or other appropriate system, to track movement of NPS collections for MUSEUM/INSTITUTION consideration under this Agreement and Collections between the parties. For NPS collections and Collections, the terms of this Agreement shall be cited in lieu of signatures on loan documents.

VI. Term and Termination of Agreement

This Agreement and MUSEUM/INSTITUTION's custodial responsibilities shall remain in effect permanently, except as follows:

- A. MUSEUM/INSTITUTION will return Collections if required by law or court order and NPS has documented such requirement to MUSEUM/INSTITUTION; or
- B. NPS may request the permanent return of Collections for park management purposes or other good cause shown, subject to mutual agreement of the parties;
- C. NPS may seek the return of Collections under extraordinary circumstances that present an imminent and serious threat to the Collections, provided that NPS has documented such circumstances and that any such return shall be subject to the mutual agreement of the parties;

Page 3 of 7

- D. If the parties are unable to reach a mutual agreement regarding return of Collections to NPS under clause B or C, the parties agree to mutually select a neutral third-party arbitrator to resolve the dispute.
 - E. Non-material breaches of the administrative and reporting obligations set forth in this Agreement shall not be grounds for termination of this Agreement.

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VII. Intellectual Property

- A. Rights in Intellectual Property: Except as set forth herein, all intellectual property resulting from use of the Collections shall be owned in accordance with applicable intellectual property laws, unless modified by contract. Each party reserves the right to pursue any future action or lawsuit to enforce such rights as it may have in the Collections or intellectual property arising from use of the Collections. Nothing in this Agreement shall be construed to affect either party's right, title and interest in trademarks registered to or owned by either party.
- B. Trademarks, Advertising and Endorsements: MUSEUM/INSTITUTION may use the terms "NPS," "National Park Service," and the NPS arrowhead logo to identify the Collections and associated documentation on the MUSEUM/INSTITUTION website, and in brochures and publications. Neither party may use the other party's name, logo or trademarks for any purpose without the other party's prior review of an example of the proposed use and written permission.

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VIII. Specimen Consumption and Destruction

Consistent with its custodial responsibilities, MUSEUM/INSTITUTION may use, and authorize third parties to use Collections for consumptive and destructive sampling and analysis consistent with MUSEUM/INSTITUTION policies, except as follows:

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A. In connection with consumptive or destructive sampling of threatened and endangered species, as defined by the Endangered Species Act; extinct species; holotypes; or other rare and high profile/charismatic species identified by NPS as restricted Specimens in NPS catalog metadata exported to the MUSEUM/INSTITUTION, MUSEUM/INSTITUTION must obtain NPS's concurrence, such concurrence only to be withheld for compelling reasons. In the unusual circumstance that an unrestricted Specimen later becomes a restricted Specimen, NPS will notify MUSEUM/INSTITUTION to modify the records accordingly, and such restricted Specimen shall become subject to this provision.

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B. When a proposed use of the Collections would result in complete destruction of a Specimen, with no part or residuum remaining in the Specimen (including DNA), MUSEUM/INSTITUTION agrees to consult with NPS as set forth in D below.

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C. Manipulation or dissection of Specimens for accepted taxonomic practice will not be deemed to be consumptive or destructive sampling subject to this clause. D. NPS agrees to respond to any MUSEUM/INSTITUTION request regarding the above uses within thirty

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(30) days of the request, but may request an additional thirty (30) days for complex requests involving large numbers of Specimens. Absent any response from NPS after 30 days (or after 60 days if extended), MUSEUM/INSTITUTION may proceed.

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IX. **Deaccession and Return**

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MUSEUM/INSTITUTION may deaccession Collections in accordance with MUSEUM/INSTITUTION collections management policies, provided that MUSEUM/INSTITUTION shall notify NPS of its intention in advance.

188 MUSEUM/INSTITUTION will return the deaccessioned Collections to NPS or may recommend a third-party to 189

receive them. NPS will make the final decision regarding disposition of the Collections and notify

MUSEUM/INSTITUTION within sixty (60) days of MUSEUM/INSTITUTION's notification. Delivery of the

Collections to the designated recipient shall be at MUSEUM/INSTITUTION's expense. In making decisions to deaccession Collections, MUSEUM/INSTITUTION will make a good faith effort to keep Collections with a common NPS accession number together unless specifically exempted by the appropriate park Superintendent; however, NPS agrees and understands that it may be impractical and infeasible for Collections with a common accession number always to remain together.

X. Confidentiality

- A. The parties agree not to disclose confidential information of the other party as defined herein. Unless otherwise required by law or policy with respect to Collections and NPS collections, confidential information shall include, but not be limited to, information concerning the nature and specific location of mineral or paleontological resources; endangered, threatened, rare or commercially valuable resources; proprietary business information including the valuations; data noted as restricted on NPS labels or catalog records; or personal information about collectors, users and researchers. Each party will use good faith efforts to identify confidential information when providing it to the other party.
- B. [Name of Museum or Institution] is not covered by the Freedom of Information Act (FOIA) (5 U.S.C. 552) except as provided for in Section 36(d)(1) of OMB Circular A-110.Should NPS receive a FOIA request for data under this provision, MUSEUM/INSTITUTION will handle all requests for access to MUSEUM/INSTITUTION records, and copies of MUSEUM/INSTITUTION records, maintained by the MUSEUM/INSTITUTION and associated with the Collections in accordance with MUSEUM/INSTITUTION policy, but MUSEUM/INSTITUTION agrees to provide NPS with a copy of records disclosure requests and responses pertaining to Collections. NPS will process all FOIA requests for NPS records associated with the Collections and agrees to provide MUSEUM/INSTITUTION with a copy of the FOIA request and responses pertaining to the Collections. Each party will refer requests to the appropriate party.

XI. Warranty, Liability and Indemnification

- A. Each party accepts full responsibility for any property damage, injury, or death caused by the acts or omissions of its respective employees, acting within the scope of their employment, or its contractors' scope of work, to the fullest extent of the law.
- B. No indemnification for any loss, claim, damage, or liability is intended or provided by any party under this Agreement.
- C. Any NPS collection, Collection, associated record copy, or confidential information conveyed under this Agreement shall be provided AS IS; furthermore, the parties make no representations as to the NPS collections, Collections, associated record copies or confidential information. They are provided without warranty of merchantability or fitness for a particular purpose or any other warranty, express or implied. The parties make no representation or warranty that the use of the NPS collections, Collections, associated record copies, or confidential information will not infringe any patent or other proprietary right.

XII. Authorized Representatives

For purposes of this Agreement, each party shall designate an individual to serve as the authorized representative for purposes of carrying out the day-to-day obligations of this Agreement and shall notify the other party in writing of such authorized representative. The authorized representative may delegate to others responsibility for carrying out specific parts of this Agreement. The parties shall notify each other in writing of any changes to the authorized representatives and their contact information. Authorized representatives designated by the parties will coordinate the resolution of any issues arising from the implementation of this Agreement. For purposes of this Agreement, the NPS authorized representative shall serve as the contact for the individual NPS units and shall disseminate communication from MUSEUM/INSTITUTION to the NPS unit representatives as needed.

XIII. Compliance with Law

- A. Non-Discrimination: The parties shall not discriminate in the selection of employees or participants for any employment or other activities undertaken pursuant to this Agreement on the grounds of race, creed, color, sex, age, disability, or national origin, and shall observe all of the provisions of Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000(d) et seq).
 - B. Anti-Deficiency Act: Pursuant to the Anti-Deficiency Act, 31 U.S.C. § 1341(a)(1), nothing contained in this Agreement shall be construed as binding the United States to expend any sum in excess of appropriations made by Congress for the purposes of this Agreement, or as involving the United States in any contract or other obligation for the further expenditure of money in excess of such appropriations.
 - C. Compliance with Applicable Law: The parties shall comply with all applicable laws and regulations.

XIV. Additional Terms

- A. This Agreement may not be transferred, assigned or amended except by written consent of both parties.
- B. If any term of this Agreement is held to be invalid or illegal, such term shall not affect the validity or enforceability of the remaining terms and the parties shall not be considered in default for failure to comply with such term.
- C. No term or provision of this Agreement shall be waived and no breach excused unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. No waiver of a breach shall be deemed to be a waiver of a different or subsequent breach.
- D. Except as expressly stated herein, neither party has the right or authority to assume or create any obligation, accept legal process, make commitments, incur any charges or otherwise bind or act on behalf of the other or limit the other in any manner whatsoever. Neither this Agreement nor any act hereunder shall be construed as constituting the foundation of a partnership, association, agency, joint venture or any other entity.
- E. The parties agree to meet as needed to review implementation of this Agreement.
- F. Any disputes between the parties shall be resolved promptly and in good faith by the authorized representatives. If the authorized representatives are unable to resolve such disputes, the matter may be referred to the MUSEUM/INSTITUTION Under Secretary for Science and the NPS Director for resolution.
- G. The person signing below on behalf of each party warrants and represents that such person has the authority to execute this Agreement and to bind the respective party to the terms and conditions set forth herein.

272		AGREED
273	National Park Service	MUSEUM/INSTITUTION Institution
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277	Director	President
278	National Park Service	MUSEUM/INSTITUTION Institution
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280	Date:	Date:
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FINAL DRAFT

283		Appendix
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285		Terms of Use
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287	1.	Collections may be used for scientific and educational purposes only;
288	2.	Research based on the Collections generally should be made publicly accessible;
289	3.	Users of the Collections must acknowledge or credit the NPS and MUSEUM/INSTITUTION
290		when referencing the Collections, associated documentation or their metadata in exhibits or
291		publications, including but not limited to print and digital formats;
292	4.	A copy of print publications or a URL address for digital publications shall be provided to NPS
293		and MUSEUM/INSTITUTION;
294	5.	Research resulting from use of the Collections must not be used for any commercial purpose
295		without first notifying NPS and MUSEUM/INSTITUTION and users may be required to enter
296		into a benefits-sharing agreement with NPS;
297	6.	Failure to comply with NPS requirements regarding benefits-sharing may render the user
298		liable to NPS for payment of 20% of the gross revenue from sales and may result in NPS's
299		imposition of additional penalties and remedies including injunctive relief, and NPS is a
300		beneficiary of these terms of use.
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American Society of Mammalogists



Ornithological Council



Society for the Preservation of Natural History Collections

Originally filed 3 April 2014; amended and re-filed 11 August 2017

The Honorable Ryan Zinke Secretary of the Interior 1849 C St., N.W. Washington, D.C. 20240

- Petition for Rulemaking-

Dear Secretary Zinke,

This Petition for Rulemaking is filed by the Ornithological Council, the American Society of Mammalogists, and the Society for the Preservation of Natural History Collections under the Administrative Procedure Act [5 U.S.C. §553(e)] and 43 CFR §14.1 *et seq.* The members of our societies are scientists who have recognized expertise in biodiversity; among them are the foremost experts in every taxonomic branch of fauna and flora. The knowledge needed for effective conservation and management of wildlife and the plant world rests on the knowledge obtained through their studies, which in turn necessitates the frequent import and export of scientific specimens and samples. Additional information about these three societies and contact information is provided in Appendix A.

Regulations requested to be revoked, suspended, or modified

The specific regulations requiring validation are 50 CFR§23.23(c)(21); 50 CFR 23.26(c)(18); and 50 CFR 23.27(c).

Requested relief

The requested relief is the revocation or suspension of the requirement for validation at the point of export of CITES materials insofar as that rule pertains to shipments of material for scientific research.

Alternate requested relief

Together with the scientific community, develop and implement alternatives for shipments of material for scientific research. We are willing to work with the Service to develop an alternate

process that would serve the purpose of validation while eliminating the problems caused by the validation process.

For instance:

- a) if the shipment is from **or** to a CITES-registered institution, allow the use of self-certification signed by the head of the institution, on institutional letterhead, in English, detailing the contents of the package (species and quantity) and affirming that the contents are covered by the permit and will be used for scientific research and no other purpose; and
- b) if the shipment is not from or to a CITES-registered institution; allow the use of a sworn, notarized statement (where available) from the shipper detailing the contents of the package (species and quantity) and affirming that the contents are covered by the permit and will be used for scientific research and no other purpose.

Background

The regulations in question call for the validation of a CITES permit at the time of export. Validation entails the endorsement on the CITES permit by a government official, signifying that the document itself is validly issued and that the contents of the shipment match the CITES permit as to type and quantity of material. The concept of validation, which is, in theory, an important enforcement measure, first appeared in the 2000 proposed revisions to the CITES regulations [65 FR 26664] and was made final in 2007 (72 FR 48401) although it was not enforced until 2008. In the proposed rule amending Part 23 (71 FR 20168) the Service gave as its justification for the validation requirement "Article VIII of the Treaty outlines measures that Parties should take to enforce the provisions of the Convention. Resolutions Conf. 9.9 (Confiscation of Specimens), 11.3 (increasing the quality of controls at the time of export and reexport (Rev. CoP13), and 12.3 (Rev. CoP13)."

The current resolution (12.3, adopted in 2002) provides that:

"Export permits and re-export certificates be endorsed, with quantity, signature and stamp, by an inspecting official, such as Customs, in the export endorsement block of the document. If the export document has not been endorsed at the time of export, the Management Authority of the importing country should liaise with the exporting country's Management Authority, considering any extenuating circumstances or documents, to determine the acceptability of the document;"

Reasons in support of the petition

Implementation of the rule has resulted in the loss of valuable scientific research material. It has also resulted in considerable effort and expense on the part of biologists and institutions. Were the validation procedure an effective enforcement measure, this additional burden might be warranted. However, as currently implemented, there is no evidence that it is succeeding as an enforcement measure to prevent illegal shipments of CITES-protected species.

Further, as best we are aware, the USFWS does not "liaise with the exporting country's Management Authority" when a CITES permit lacks an endorsement. We can only speculate as to the reasons, including insufficient staffing levels and, as we have experienced ourselves, significant difficulty in identifying and contacting the CITES Management Authority offices in

many countries. Whatever the reasons, it would not be a workable solution to simply implement this "liaison" procedure.

Detailed explanation and evidentiary support for the petition

1) Inability to obtain validation

When the USFWS rule was made final in 2007, the Service noted that commenters were concerned about the inability of exporters to obtain the required validation. In 2009, when reports that this was proving to be the case began to come in, a representative of the Ornithological Council (OC) met with the USFWS Chief of the Division of Management Authority (DMA) and the chief of the operations branch of the DMA as well as a special agent of the Division of Law Enforcement to discuss a request that the validation requirement be suspended. The OC also requested, in the alternative, that "the Division of Management Authority and the Division of Law Enforcement work together to develop a system for port inspectors to refer imports lacking validation for review by the Operations Branch of the Division of Management Authority, and for the use of alternative means of verification, such as direct communication with the issuing Management Authority." They responded that the Service had done extensive outreach to every CITES party and that they were confident that the parties were sufficiently aware of the validation procedures, but that if problems were to occur, to bring these problems to their attention.

Since that time, the OC has done just that. Petitioners append a list of the cases that have been brought to our attention (Appendix B). The cases on this list are undoubtedly only representative; we had no means of assuring that all cases would be brought to our attention. As described below, we attempted to obtain a more complete list from the USFWS by way of a FOIA request but learned that the USFWS does not collect such data. This list was provided to the Division of Management Authority in 2011, when asking that they propose an agenda item for the 15th Conference of the Parties to exempt scientific shipments from the validation requirement. We have also sent this information to the Divisions of Law Enforcement and International Affairs and have kept those offices apprised of new cases.

It has become clear that indeed, as evidenced by the incidents reported below, many nations are unable or unwilling to establish a reliable process for validation of CITES permits, notwithstanding the Service's extensive outreach efforts and training. Given that many parties are not yet willing or able to comply with even more basic aspects of CITES implementation, including the use of security paper, establishment of functioning management authorities, and the filing of annual reports, it is not surprising that many are not equipped to implement the validation requirement. It is also not surprising that despite the efforts made by the Service in 2007, that personnel changes in Management Authorities and in Customs (most countries do not have wildlife authorities at the airports; validation is handled by Customs officials) would eventually lead to the loss of the individuals who were trained in 2007. Even when there is a trained individual—and, in many countries, it does seem to be a single individual who has the authority to validate—the absence of that individual from the place where validation is to occur results in the inability to obtain validation.

We have asked both the USFWS and the CITES Secretariat for a list of the agencies and locations in each country where validation can be obtained. Neither agency could provide such a

list. They simply pointed us to the list of CITES Management Authorities on the CITES website, but as experience has shown, it is sometimes impossible to reach those offices and on some occasions, those offices were unable to explain how to obtain validation at the time of export. Some have even insisted that it was not necessary. Even when scientists are able to ascertain how to obtain validation and make strenuous efforts to obtain validation, it often is not to be had.

Unless and until every country demonstrates that it is ready, able, and willing to provide a reliable means by which exporters can obtain permit validation—including a specific place or places where permit validation is available, fixed times when permit validation, and a reliable means of assuring that the validation itself is authentic—validation is posing an often insurmountable burden that does not serve to protect wildlife.

2) The USFWS lacks evidence to determine the extent to which validation has improved enforcement

A FOIA request was submitted to the Division of Law Enforcement to determine the number of imports that were seized or refused due to lack of validation. The request sought all records of CITES imports after 1 May 2008 that had been detained, seized, refused entry, or destroyed as a result of a determination that the CITES permit lacked a validation or an acceptable validation (i.e., the port inspector determined that the validation was deficient in some way). We received a response on 2 August 2012; the Division of Law Enforcement provided a spreadsheet of all CITES violations together with an explanation that "We do not capture information in our system that ties CITES imports with the specific determination that a 'CITES permit lacked a validation or an acceptable validation.'"

The lack of data makes it impossible to know the extent to which validation alone (as opposed to an actual violation) has resulted in the rejection of shipments, which in turn often results in loss of the material in the return process, or outright destruction of the material. The corollary is that the lack of data also makes it impossible to know how many instances occurred in which shipments contained materials that were not covered by the permit and that should have been stopped before leaving the country of origin during the validation process. If any significant number of shipments entail actual violations, then it suggests that the validation process is not working. Thus, the USFWS can not assess with any degree of certainty the extent to which there is problem that needs to be addressed by the validation process or that the validation process is effective in addressing that problem.

More significantly, the USFWS inspection process should be sufficient to prevent the import of materials that are not authorized by the permit. The USFWS has authority to inspect every wildlife shipment that comes to the United States. It has inspectors at eighteen designated wildlife ports, which are user-fee-supported positions. The law requires that CITES shipments enter through these designated wildlife ports. The FOIA response listed 8,667 CITES violations between 5 May 2008 and 13 July 2012, suggesting an extremely high level of inspection activity. It is unclear how the validation at export, which, as described below, is unreliable at best, enhances the ability of the USFWS to detect violations.

The Biannual Reports from the USFWS to the CITES Secretariat do not state how many CITES shipments were received during the time covered by that report and reports only the number of specimens seized rather than the number of violations. Therefore, at least from the data in the

official reports, it is impossible to determine if the number and/or rate of violations increased or decreased over the time period covered in each report. It would appear that the Service cannot determine if validation has reduced the number of shipments that contain more or different material than allowed by the permit.

3) The validation mechanism itself is faulty generally and particularly with regard to most scientific imports and therefore does not actually enhance enforcement

The validation mechanism entails a physical inspection of the contents of a shipment at the time and place of export. Some countries appear to have no process in place, but even in those countries that have instituted a process, the validation is ordinarily handled by Customs officials, not wildlife officials. Customs officials have no means of identifying the contents of a package as they are not trained to recognize the 5,600 CITES-listed animal species or parts thereof or the 30,000 CITES-listed plant species. This is particularly true where the shipment contains tissue or blood samples that can be identified to species only with DNA-testing. Therefore, the signature of a Customs official is not sufficient to signify that the shipment contains only material that is covered by the permit.

The process is further flawed in that the validation often occurs at a time and place distant from that of the actual shipment and the container is returned to the shipper. For instance, in at least two cases reported below, validation took place at an office some distance from the airport. During the time between validation and actual shipment, the contents could be replaced or additional material could be added to the shipment.

More importantly, the validation marking may consist of nothing more than the barely legible initials of a Customs official. There is no requirement for an official CITES stamp; there are no security features to ensure the validity of the validation mark.

4) The CITES resolution implemented by the regulation does not require the measures taken by the USFWS

The CITES resolution provides that "If the export document has not been endorsed at the time of export, the Management Authority of the importing country should liaise with the exporting country's Management Authority, considering any extenuating circumstances or documents, to determine the acceptability of the document."

It appears that the USFWS has established a regulatory absolute that exceeds the intent of the CITES resolution, in that the resolution recognizes that validation (the term used by the resolution is "endorsed") may be lacking but the permit may still be considered acceptable. Although it would appear that an alternate solution to this problem might be a Secretarial directive to the USFWS to modify implementation to make regular use of this liaison process, it seems unlikely to resolve the problem. This option was always available to the USFWS which has seemingly determined that it does not want to avail itself of this measure. It certainly seems cumbersome and likely to result in the recall of shipments for validation, which adds burden and cost and a high probability of loss of the shipment in transit or damage to the contents. Further, it can be extremely difficult to actually reach someone in the Management Authority offices of many countries. Therefore, it does not seem a viable solution to the problem.

Please realize that we understand the need for effective enforcement and we would not seek an exception to this important rule without a good reason. The fact is that, at least with scientific research material, the validation procedure has not proved effective. On the contrary, it has actually been detrimental to species conservation in that research specimens are destroyed or lost or rendered unusable due to physical degradation. Many of these specimens come from museums and not from wild populations, and even those collected from live, wild individuals are collected in a manner that does not harm individuals or populations. Destroying this material or forcing it to be returned to the country of origin, which often results in loss or physical degradation, does not serve the purpose of species conservation. Moreover, the nature of research specimens is generally such that an official inspecting the contents of a shipment would have no way of determining if that material is, in fact, derived from species listed on the permit, Typically, the shipments include blood samples, tissue samples, or other material that is not recognizable as a certain species. Frequently, the validation is handled by a Customs official who has no training in species identification and has no resources at hand, and so may not even be able to determine if a preserved specimen is a species listed on the permit. Furthermore, every researcher has reported that after validation, the package is returned to the researcher. This is apparently standard practice, even in the United States. It is hard to understand how validation can be an effective enforcement method if the package is not kept under control of the agency after validation. We will continue to raise the issue to the CITES Standing Committee, but in the meanwhile, ask that the USFWS suspend the regulation insofar as the import of scientific research material is concerned and, in the meantime, develop a procedure in lieu of validation to obtain confirmation from the exporting country that the shipment was, in fact, authorized and that upon receiving this confirmation, to allow entry.

5) As scientific shipments rarely comprise specimens taken from the wild in recent years, there is little or no impact on conservation; in fact, the research served by these shipments is essential to wildlife conservation. In fact, permits are issued only after finding is made that the import (or export) will be non-detrimental to the survival of the species.

Scientists are keenly aware of the need to protect wildlife and make every effort possible to avoid having an impact on populations of wildlife. Much, if not most, taxonomic study and other research involving wildlife can be undertaken with museum specimens or blood or tissue samples, which may also be taken from natural history collections rather than collected from wild animals. In many cases, there is no need to sacrifice additional live animals. Moreover, it is exceptionally difficult to obtain permits to collect from the wild in the case of rare or declining species. For these reasons, most of the material that is imported and exported for scientific research has no impact whatsoever on the wild populations of the protected species.

Scientific research is an activity that serves conservation by generating the scientific knowledge upon which effective conservation and management rest. Indeed, CITES listings and findings on permit applications could not be made without this knowledge.

Implementation of CITES is not serving and is in fact detrimental to the goal of wildlife conservation if otherwise valid shipments are seized and destroyed or refused entry simply because a scientist was, despite all reasonable efforts and more, unable to have the permit validated or validated in the required manner.

For the foregoing reasons, we respectfully request that the Secretary direct the U.S. Fish and Wildlife Service to commence a rulemaking for the purpose of exempting scientific shipments from the CITES validation process.

Sincerely,

Ellen Paul*

Executive Director

Ornithological Council

Edward J. Heske

President

American Society of Mammalogists

Edward of Heshe

Christopher A. Norris

President

Society for the Preservation of Natural History Collections

Ellen Paul Ornithological Council 6512 E. Halbert Rd. Bethesda, MD 20817 Phone (301) 986 8568

e-mail: ____ (b) (6)

^{*}To whom correspondence should be addressed:

Appendix A: About the petitioners

The Ornithological Council is a consortium of twelve scientific societies of ornithologists, spanning the Western Hemisphere: American Ornithologists' Union, Association of Field Ornithologists, Birds Caribbean, CIPAMEX, Cooper Ornithological Society, Neotropical Ornithological Society, North American Crane Working Group, Pacific Seabird Group, Raptor Research Foundation, Society of Canadian Ornithologists, Waterbird Society, and the Wilson Ornithological Society. In addition to their peer-reviewed journals, these scientists have produced and continue to update the authoritative Birds of North America species accounts and the Birds of North America and Middle America (this list produced by the American Ornithologists' Union, is the official source on the taxonomy of birds found in North and Middle America and is the basis of the Migratory Bird Treaty Act list. Much of the information needed to make CITES listing decisions is scientific information generated by the members of these societies.

The Society for the Preservation of Natural History Collections is an international organization devoted to the preservation, conservation and management of natural history collections. These collections are not only comprehensive records of biodiversity but also serve to demonstrate the impacts of environmental change on the natural world. The members of the Society:

- *Identify, Catalog, and Document*: Correct identification and organization of specimens and their associated information is critical for the use of collections and requires experience and specialist knowledge.
- *Prepare, Preserve, and Conserve*: Ensuring the future availability of collections and their supporting documentation depends on a holistic approach to their care as well as the correct use of conservation and preparation materials and techniques.
- Research and Develop: SPNHC members carry out specimen-based research on collections, and also research to develop new techniques for specimen care and preservation.
- *Share*: From physical access to digitization and databasing, our members make collections accessible for use today and into the future.

The American Society of Mammalogists was established in 1919 for the purpose of promoting interest in the study of mammals. Its 2,500 members include many of the key scholars whose research is vital to the understanding and conservation of mammal species in the wild. The *Journal of Mammalogy* is the flagship publication of the American Society of Mammalogists. Published since 1919, the highly respected international scientific journal promotes interest in mammals throughout the world by the publication of original and timely research on all aspects of the biology of mammals; e.g., ecology, genetics, conservation, behavior, and physiology. *Mammalian Species* is published by the American Society of Mammalogists with 15-25 individual species accounts issued each year. Each uniform account summarizes the current understanding of the biology of an individual species including systematics, distribution, fossil history, genetics, anatomy, physiology, behavior, ecology, and conservation.

Appendix B: Summary of validation problems reported to the Ornithological Council

Note: Identifying information has been withheld. If requested by the Department of the Interior, we will seek permission from the researchers described in each case to authorize us to provide their identities and further information as is necessary for the Department to determine that the situation was as described.

Case 1: A researcher attempted to import blood samples taken from a captive population of CITES-listed birds in South Africa. Several days prior to return the United States, the researcher attempted to make an appointment at the airport to obtain a permit validation. The researcher was told that an appointment was not necessary. In order to determine where to find the individual who could validate a permit, the researcher called Customs officials at the airport who told the researcher that the samples did not need to be declared so long as the researcher had the appropriate permits and was carrying the materials out in accompanying baggage rather than sending it as cargo. Having been advised by an expert in the United States that a validation was required, the researcher disregarded the statements made by the South African Customs officials during the phone conversation and went in person to the Customs Office at Oliver Tambo International. The researcher was again told that as long as the material was not being shipped as cargo, a validation was not needed. The researcher insisted on seeing a supervisor, and the supervisor said the same thing. In other words, South African Customs actually refused to validate the permit because they mistakenly believed that it was not necessary to do so. The researcher traveled to the United States and upon arrival, the port inspector seized the materials.

Case 2: A researcher traveled to South Africa and prior to his planned return to the United States, made an appointment with a Customs Official to have the CITES permit validated. The researcher arrived in Johannesburg the night before the planned departure so as to be able to get to the airport first thing in the morning. Upon arrival, he learned that the individual who was supposed to validate the permit had not come to work that day. No one else would validate the permit. The researcher's South African colleagues were several hours away and would not be able to retrieve the materials before his flight was scheduled to leave. The researcher contacted the Ornithological Council and we contacted a Law Enforcement official in the Region 9 office who said that there was nothing that could be done and that the materials would have to be left in South Africa or would be seized upon arrival.

Case 3: In the United States a researcher needed to obtain validation to ship CITES research material to Japan. There are no registered scientific institutions in Japan and colleagues in that country report that the Japanese government has declined to register institutions. Therefore, the COSE can not be used. The researcher does not live or work near a designated wildlife port and so applied for and received permission to use a non-designated port. Each time the researcher exports through this port, the researcher makes an appointment to meet with a USFWS inspector. On some occasions, the researcher has waited two hours to see the inspector, notwithstanding the fact that an appointment was made. Including travel time, the process took nearly an entire work day.

Case 4: A researcher in Laos sent formalin-fixed samples from a saola antelope (*Pseudoryx nghetinhensis*), one of the world's rarest mammals, endemic to the Annamite Mountains. There is no way to have a CITES permit validated in Laos because there are no Customs officials at the airport who are authorized to validate these permits. The samples could not be sent back to Laos

because the formalin would dry out and the material would degrade and become unusable. The recipient was willing to go the port to add formalin to prevent this problem, but the Port Inspector refused to allow it. These are the only samples that exist of this species.

Case 5. A shipment of approximately 800 specimens taken from the wild, in a country that has not registered any scientific institutions (Madagascar), arrived in the United States with the validation signed, but the port inspector determined that the itemized listing was inadequate. The museum in question hired a customs broker to be sure the paperwork was properly completed and the customs broker believed that if the customs authority in the country of export signed Box 14, that the manner in which the contents of the shipment had been listed was sufficient. In fact, at least by the standards of the U.S. Fish and Wildlife Service, this was not the case.

Scientific field expeditions often generate hundreds and sometimes thousands of samples. It is unrealistic to think that a customs official will count each item in a large shipment, much less be able to identify any of the materials in the shipment. In cases such as these, the shipper is virtually powerless to comply. As with the cases cited above, the shipper cannot force the customs authority or wildlife authority to validate the permit, or to do so properly.

Case 6. A scientist imported non-CITES specimens from a country that uses the CITES permit forms for all its exports. Having to then obtain a validation for a non-CITES import (because it is entirely possible that the port inspectors will require the validation simply because it is a CITES permit form), is an unwarranted burden on the researcher.

Conversely, other countries are not yet using CITES permit forms, making validation impossible.

Case 7. Numerous countries have designated only one port for validation. Every museum and researcher, no matter where located, must assure that the shipment goes to that particular port for validation prior to shipment. In reality, this means taking the shipment in person, because scientists are reluctant to risk loss of research materials from rare species by relying on customs brokers or others to handle the validation properly and fully. This entails a trip to the designated port, a considerable expense and time burden.

Case 8. As noted above, some ports have authorized only one individual to validate CITES permits. If that individual is not present for some reason, a researcher is unable to have the permit validated. In an effort to aid researchers, we have tried to obtain a list of the personnel authorized to validate CITES permits. Both the CITES Secretariat and the U.S. Fish and Wildlife Service informed me that no such list was available. We were told to contact the management authority of the country from which the export would take place. This is not always easy to do. Ellen Paul (Ornithological Council) once attempted to contact the management authority of The Gambia. The information on the CITES website was inaccurate; e-mails bounced and the phone numbers did not work. She contacted the Secretariat who verified that this is the only information they had. After about six weeks of trying to reach the management authority via contacts in other countries, she heard from an employee who was in another country, studying for a graduate degree. He provided contact information for his superiors in the management authority, but they did not reply until two months later. This kind of situation, which probably exists in many countries, would virtually preclude all CITES exports that require permits.

Case 9. In August 2012, scientists attempted to import research materials from El Salvador. They went to the Office of Management Authority in that country. A representative of the Office of Management Authority chose to write a letter on that agency's letterhead rather than validating the permit itself. The letter, itself bearing the official stamp of the Office of Management Authority, listed the number of specimens but not the species (not surprising as most of the samples consisted of skeletons, feathers, and tissues). The scientists were assured repeatedly that the CITES permit was complete. When the scientists arrived at the designated wildlife port, the samples were seized due to lack of proper permit validation. To the credit of the port inspector, however, she held the materials until another document could be obtained from El Salvador. This substitute document was not a validated permit and it is not clear why the original letter did not suffice. It is also interesting to note that the Division of Law Enforcement apparently directed the importer to tell the Office of Management Authority of El Salvador that the substitute document should read, "In our efforts to assist with the exportation of CITES bird species from El Salvador to [X Institution], the validation portion of the forms (section 14 and 15) were left blank. We were unaware the United States of American Fish and Wildlife Service requires this export validation." This suggests USFWS the outreach conducted several years earlier was no longer effective. In fact, not only are countries unaware of the validation requirement and the manner in which permits were to be validated, but by instructing the El Salvadoran authorities to state as much - the USFWS has tacitly admitted that this is the case.

Case 10: A prominent research and conservation organization was unable to obtain validation because the scientists were departing the country where the specimens had been collected via a U.S. Air Force Base and the Air Force has no mechanism in place to validate CITES permits. The port inspector's supervisor apparently chose to give the port inspector the authority to overlook the lack of validation, but of course, a reasonable solution is never assured; it is in fact, exceptional at best.

Case 11: In May 2013, a researcher spent over a week trying to persuade the authorities in Trinidad to validate the CITES permit and the authorities insisted, repeatedly, that the permit did not need to be validated. Mr. Woody (USFWS Chief of the Division of Law Enforcement) and Mr. Arroyo (USFWS Assistant Director of International Affairs) were made aware of the situation as it was occurring. Even direct intervention—the OC Executive Director contacted the Wildlife Authority in Trinidad and also asked USFWS Law Enforcement to contact them—was fruitless. Ultimately, Special Agent-in-Charge Luis Santiago stepped in and resolved the problem but this is the one instance in which a Law Enforcement agent chose to exercise discretion in a manner that prevented the loss of research material; it seems unlikely that the port inspectors have such discretion or are willing to contact superiors to ask for permission to waive the validation requirement in appropriate cases. Further, we doubt that any of us thinks that this ad hoc crisis-solving serves the Service or the research community well.

Case 12: In September 2013, having been alerted to the problem in Trinidad, another researcher took extreme measures to have her CITES permit validated. She was told that it would need to be validated by the quarantine office at the airport. She went to the airport a day in advance of her planned travel. There was only a plant quarantine office, so she instead went to Customs, where she was told that the shipment would need to be inspected by a veterinarian, even though the shipment did not contain living material and even though disease status has nothing to do with CITES which is a mechanism to protect living populations of wildlife and plants threatened by trade. She was then sent to the comptroller of the Customs office who sent her back to plant

quarantine, which continued to refuse to validate the permit. The comptroller of the customs office then told her that the permit would be validated by Customs the next day. However, the next day, no one in the Customs office seemed to know about the validation requirement or process and again sent her to plant quarantine. Eventually, a Customs official did sign the validation box but did not include the quantities until the researcher insisted that they be listed.

Case 13 (2017 update): In August 2013, a museum imported a CITES Appendix II skeleton from Kuwait. The scientist hand-carried the import to the U.S. and declared it upon arrival, as required by law. He presented the required CITES permit but the permit had not been validated and the skeleton was seized by the USFWS. The museum filed a petition for remission and the Solicitor's Office determined that remission was appropriate because the Kuwaiti Management Authority staffer did not know about the validation requirement, did not instruct the importer that validation was required, and admitted that Kuwait had made no arrangements for permit validation to be obtained at the airport (i.e., at the time of export).



PROVIDING SCIENTIFIC INFORMATION ABOUT BIRDS

American Ornithologists' Union

Association of Field Ornithologists

Birds Caribbean

CIPAMEX (Sociedad para el Estudio y Conservación de las Aves en México)

Cooper Ornithological Society

North American Crane Working Group

Neotropical Ornithological Society

Pacific Seabird Group

Raptor Research Foundation

Society of Canadian Ornithologists/ Société de Ornithologistes du Canada

The Waterbird Society

Wilson Ornithological Society

Ellen Paul Executive Director 6512 East Halbert Road Bethesda, MD 20817 Phone (301) 986-8568 Email: ellen.paul@verizon.net 15 June 2014

The Honorable Sally Jewell Secretary of the Interior 1849 C St., N.W. Washington, D.C. 20240

Petition for Rulemaking-

Dear Secretary Jewell,

This Petition for Rulemaking is filed by the Ornithological Council, a consortium of twelve scientific societies of ornithologists. The members of these societies regularly import and export avian specimens and samples of avian tissue, feathers, and blood for the purposes of scientific research. Much of this research form the foundation of species conservation and serves other important biodiversity management purposes. The members of our societies are scientists who have recognized expertise in biodiversity; among them are the foremost experts in every taxonomic branch of fauna and flora. The knowledge needed for effective conservation and management of wildlife and the plant world rests on the knowledge obtained through their studies, which in turn necessitates the frequent import and export of scientific specimens and samples.

We request three changes to 50 CFR Part 14. The first change is requested for clarification; it is our understanding that it accurately describes existing USFWS practice. The other two changes are requested to remove barriers to scientific research that requires the international movement of scientific specimens and samples. More detailed explanation is given following the list of requested changes.

Regulations requested to be revoked, suspended, or modified

We request revisions to three provisions of 50 CFR Part 14.

Requested relief

(1) To 14 CFR §14.11

Add the text, "This provision does not preclude the import or export of wildlife, including wildlife protected under parts 16, 17, 18, 21, or 23

of this subchapter B, by use of the international mail and the U.S. Postal Service.

(2) To 14 CFR §14.24

§ 14.24 Scientific specimens. Except for wildlife requiring a permit pursuant to parts 16, 17, 18, 21, 22 or 23 of this subchapter, dead, preserved, dried, or embedded scientific specimens or parts thereof, imported or exported by accredited scientists or accredited scientific institutions for taxonomic or systematic research purposes may enter or exit through any U.S. Customs port, or may be shipped through the international mail system. *Provided*, that this exception will not apply to any specimens or parts thereof taken as a result of sport hunting.

We request that the term "taxonomic or systematic research purposes" be stricken and replaced by "scientific research."

(3) To 14.92(b)(1)Iii)

(b) *Certain persons.* (1) The following persons may import or export wildlife without obtaining an import/export license, provided that these persons keep records that will fully and correctly describe each importation or exportation of wildlife made by them and the subsequent disposition made by them with respect to the wildlife.(i) Public museums, or other public, scientific, or educational institutions, importing or exporting wildlife for noncommercial research or educational purposes; and(ii) Federal, State, tribal, or municipal agencies.

Add text as follows: For the purposes of this regulation, museums operated in whole or part by the federal government, state universities, state museums, and other state institutions are considered to be federal or state agencies.

Detailed explanation and evidentiary support for the petition

1) To 14 CFR §14.11

Add the text, "This provision does not preclude the import or export of wildlife, including wildlife protected under parts 16, 17, 18, 21, or 23 of this subchapter B, by use of the international mail and the U.S. Postal Service.

Reason: It is our understanding from discussion with staff in the USFWS Division of Law Enforcement that the proposed language actually reflects USFWS policy that scientific specimens and samples may be sent through the mail. Apparently, the USFWS assumes that international mail will travel through one of the designated wildlife ports and therefore allows use of the mail but this assumption and implementation policy have not been made clear. Further, another regulatory provision (14.24) allows the use of the mail in certain limited cases. That there is an exception implies that the activity is not otherwise allowed. This,

coupled with the lack of clarity, has caused significant confusion and caused researchers to believe that they are not permitted to send wildlife specimens and samples through the mail. Researchers may want to avail themselves of this option as Part 14 expressly exempts shipments sent through the mail from the inspection fee.

Clear and thorough regulations facilitate compliance. It is far more efficient to revise the regulation than to repeatedly explain "what is meant" by what is unsaid. Therefore, we request that the USFWS revise this regulation to make clear that wildlife may in fact be sent through the mail, consistent with its actual policy.

(2) To § 14.24, we request that the term "taxonomic or systematic research purposes" be stricken and replaced by "scientific research."

Scientific specimens. Except for wildlife requiring a permit pursuant to parts 16, 17, 18, 21, 22 or 23 of this subchapter, dead, preserved, dried, or embedded scientific specimens or parts thereof, imported or exported by accredited scientists or accredited scientific institutions for taxonomic or systematic research purposes may enter or exit through any U.S. Customs port, or may be shipped through the international mail system. *Provided*, that this exception will not apply to any specimens or parts thereof taken as a result of sport hunting.

Reason: It is not clear why this provision is needed, given that the USFWS states that it does not prohibit the use of the mail to import or export specimens from protected species (or non-protected wildlife). However, the provision exists and should the USFWS retain this provision, we request that the term "taxonomic or systematic research purposes" be replaced by the term "scientific research." Having an exemption without a prohibition simply creates confusion, as noted previously.

On a more substantive basis, it appears that the regulation is actually inapposite to what was intended. In the discussion published along with the final rule (61 FR 31850), the USFWS stated that:

During the comment period, the Service received numerous inquiries and comments from members of the scientific community. Members of the scientific community were extremely concerned about the effects of the Service's regulations upon the ordinary scientific exchange of scientific specimens being shipped internationally through the mail or by way of ports other than officially designated Service ports of entry. Many expressed the concern that the Service's proposed regulations would seriously discourage much needed scientific research by adding significantly to its cost in dollars, hours worked, and paperwork. The Service, in publishing its proposed rule of September 14, 1994, did not intend to make any substantive changes to the existing requirements related to scientific specimens. The existing requirements relating to the importation and exportation of wildlife at Service Designated Ports, and the inclusion of invertebrates within

the definition of wildlife, remained unchanged. The Service, however, has benefited from the many comments received and is making additional changes to Part 14 to address the concerns of the respondents. The numerous comments and inquiries received by the Service have helped the Service identify the technical and procedural problems associated with the present requirements in part 14, and those problems contained in the proposed rule. The Service has already acknowledged the need for some substantive changes and published in the Federal Register (60 FR 15277) a supplementary proposed rule on Thursday, March 23, 1995, allowing for scientific exchange. The significant change is the addition of a new section at Sec. 14.24, entitled "Scientific Specimens" that allows accredited scientists or accredited scientific institutions to import or export, at any Customs port or through the international mail system, dead, preserved, dried, or embedded taxonomic or systematic collection specimens. This exception would not apply to wildlife being imported or exported that would require a permit under any of the Service regulations established in Title 50, Code of Federal Regulations, parts 16, 17, 18, 21, 22, and 23.

So, although the USFWS created a new regulation expressly to address the concerns of the scientific community about the burden of the import/export regulations (Part 14), it appears that they misunderstood the purpose of these transactions and perhaps inadvertently limited this new rule to only one particular type of research for which specimens and samples are needed and transported around the world. Taxonomic and systematics research represents only one use of biological specimens. It is hard to imagine that the USFWS intended to alleviate a burden for only one particular kind of scientific question that can be addressed using this material.

For instance, the age of an individual can be determined using a variety of scientific methods including otoliths (for fish) or with a biomarker called pentosidine (from skin samples of birds and mammals). The changing size of museum specimens has been used to document climate change. Specimens and samples can also be used to determine the cause of population declines, as occurred when DDT metabolites in egg shells led to the realization that this insecticide was responsible for declines in Brown Pelicans, Bald Eagles, and other fish-eating birds. These are but a few examples of the many scientific questions whose answers rely on the use of samples and specimens. It seems odd indeed that a sample might be imported both for taxonomic research and for use in assessing age or pesticide load and one part of that same sample from the same bird and the same country would be exempt under 14.24, i.e., that it could be imported through the mail but the other part of the specimen could not be imported in the manner described in 14.24. It could, however, be imported through the mail under 14.11, and further, if the sample were taken from a protected species, it could not be imported in the mail under 14.24 but it could be imported through the mail under 14.11.

(b) *Certain persons.* (1) The following persons may import or export wildlife without obtaining an import/export license, provided that these persons keep records that will fully and

correctly describe each importation or exportation of wildlife made by them and the subsequent disposition made by them with respect to the wildlife.(i) Public museums, or other public, scientific, or educational institutions, importing or exporting wildlife for noncommercial research or educational purposes; and(ii) Federal, State, tribal, or municipal agencies.

Add text as follows: For the purposes of this regulation, museums operated in whole or part by the federal government, state or municipal universities, state or municipal museums, and other state or municipal institutions are considered to be federal or state agencies.

Reason: Until recently, the USFWS treated museums operated in whole or in part by the federal government and state universities and other state-owned institutions as exempt under this rule. In fact, it is the only interpretation that makes sense. These universities and research institutions are state-established, state-controlled, and state-funded. The employees are state employees. The rule does not limit the term state agency to state regulatory agencies and indeed, if it did, it would make little sense because state regulatory agencies rarely, if ever, import wildlife. This relatively new interpretation is based on an unwritten interpretation by the USFWS. Had the agency wanted to exclude museums, universities, and other institutions owned and operated by the federal government or by states or municipalities, it could have done so with a clear and thorough regulatory definition. That it did not do so and, until recently treated this group of institutions as exempt, suggests that the USFWS intended to continue its practice of exempting this group from the base fee requirement.

Therefore, we request that the regulatory language be revised to make clear that this group is indeed exempt from the base inspection fee.

We note that the USFWS exempts certain commercial importers from base inspection fees because they are considered "low risk." Neither the proposed rule (73 FR 9972) nor the 2008 final rule (73 FR74615) discusses the reason for this exemption. However, it is equally clear that the USFWS considers noncommercial importers to be low-risk as well. The proposed rule stated that, "Individuals or organizations who import or export shipments of wildlife for noncommercial purposes at designated ports, using the mail, as passengers, or by personal vehicle, that contain species that are protected by Federal or international law, or live specimens, will be exempt from designated port base inspection fees and premium inspection fees. However, they will still be responsible for overtime fees for any inspections that take place outside normal working hours. We decided to provide this exemption under these circumstances because we do not consistently provide inspection services at mail facilities, passenger terminals, or for personal vehicles. Surely, the decision to forego consistent inspection services at mail facilities, passenger terminals, and for personal vehicles hinged on the considered decision by the USFWS, based on experience and expertise, that these importers are low-risk. If two categories of importers commercial and noncommercial are both low-risk, then the same fee exemption should apply.

Scientists who import and export these research materials face substantial burdens in terms of the time required to complete permit applications and comply with other procedural requirements. A single import or export can require a dozen or more hours depending on the nature of the material. The fees can also become burdensome. A single transaction involving any protected species will require a USFWS permit as well as a permit issued by the USDA Animal and Plant Health Inspection Service. Many transactions require special handling by customs brokers or FedEx. Researchers and institutions that engage in multiple transactions could have transaction-related expenses in the thousands of dollars. At the largest institutions, these fees could exceed ten thousand dollars per year. These organizations are all experiencing the same financial stress that has been a challenge for the USFWS over the years. Federal and state budgets have been stagnant or even declined and research grants have become smaller and more difficult to obtain. These fees pose a hindrance to their research, which is not only the basis for much of the USFWS conservation and management decisions, but is also key to their continued employment in that the research is what they are paid to do.

For the foregoing reasons, we respectfully request that the Secretary direct the U.S. Fish and Wildlife Service to commence a rulemaking to effectuate the requested changes.

Sincerely,

Ellen Paul Executive Director Ornithological Council **To:** Timothy Williams[timothy_williams@ios.doi.gov]

Cc: aurelia skipwith@ios.doi.gov[aurelia skipwith@ios.doi.gov]; Cynthia Moses-

Nedd[cnedd@blm.gov] **From:** dloper

Sent: 2018-08-01T13:20:31-04:00

Importance: High

Subject: [EXTERNAL] ESA reform

Received: 2018-08-01T13:24:37-04:00

Mr. Williams, and Aurelia and Cynthia: Thank all of you VERY much from myself and from the entire Wyoming State Grazing Board, WSGB, for all of your efforts on a lot of subjects to help make multiple use and sustained yield a viable policy again. Your efforts are most appreciated and we are in complete support of the efforts of this Administration's proposed changes to ESA policies. These changes will help a lot at the field level.

I hope each of you can attend the 50th anniversary of the Public Lands Council in Park City, Utah, next September 27-28 so we can thank you personally for all your efforts.

Respectfully, Dick Loper, Rangeland Issues Consultant to the WSGB

To: 'Skipwith, Aurelia'[aurelia_skipwith@ios.doi.gov]

From: Ann W Loomis

Sent: 2018-08-06T14:12:47-04:00

Importance: High

Subject: [EXTERNAL] FW: ACP - Appeals of US Fish and Wildlife Incidental Take Statement - Vacature Opinion Regarding ITS; Vacature of NPS Right of Way Permit - Confidential Attorney Client Privileged

Received: 2018-08-06T14:13:11-04:00

Defenders of Wildlife v FWS (Case No. 18-1083) - Opinion.pdf

Aurelia,

We received the 4th Circuit opinion vacating the FWS Incidental Take Statement for the Atlantic Coast Pipeline. Unexpectedly, the Court also vacated the NPS Right of Way Permit issued to ACP.

	On the FWS appeal, the opinion does not extend past the initial vacatur order, so the Biological Opinion remains in place and intact and nothing about the remand of the ITS implicates the need for reinitiating consultation with FWS.
	On the NPS appeal, the opinion assumes NPS has the authority to grant the ROW, but faults NPS for invoking the wrong statutory and regulatory provisions and for failing to supply an explanation with the permit as to why ACP is not inconsistent with the purposes of the Blue Ridge Parkway.
	No injunction on construction was issued.
We wo	uld like to discuss the next steps.
Thank	you,

Ann Loomis | Vice President, Federal Affairs | Dominion Energy 400 N. Capitol Street, NW, Suite 875, Washington, DC 20001 202.585.4205 (o) 202.997.1849 (c)



Ann

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PUBLISHED

UNITED STATES COURT OF APPEALS FOR THE FOURTH CIRCUIT

No. 18-1082

SIERRA CLUB; VIRGINIA WILDERNESS COMMITTEE,

Petitioners,

v.

UNITED STATES DEPARTMENT OF THE INTERIOR; NATIONAL PARK SERVICE, an agency of the U.S. Department of the Interior; RYAN ZINKE, in his official capacity as Secretary of the Department of the Interior; MICHAEL T. REYNOLDS, in his official capacity as Deputy Director, Operations, Exercising the Authority of Director; STAN AUSTIN, in his official capacity as Southeast Regional Director, Responsible Official,

Respondents,

ATLANTIC COAST PIPELINE, LLC,

Intervenor.

On Petition for Review of a Decision of the National Park Service. (5-140-1945)

No. 18-1083

DEFENDERS OF WILDLIFE; SIERRA CLUB; VIRGINIA WILDERNESS COMMITTEE,

Petitioners,

v.

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UNITED STATES DEPARTMENT OF THE INTERIOR; FISH AND WILDLIFE SERVICE, an agency of the U.S. Department of the Interior; RYAN ZINKE, in his official capacity as Secretary of the Department of the Interior; GREG SHEEHAN, in his official capacity as Principal Deputy Director; CINDY SCHULZ, in her official capacity as Field Supervisor, Virginia Ecological Services, Responsible Official,

Respondents,

ATLANTIC COAST PIPELINE, LLC,

Int	erv	en	or.
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On Petition for Review of a Decision of the United States Fish and Wildlife Service. (CP15-554-000; CP15-554-001; CP15-555-000)

Argued: May 10, 2018 Decided: August 6, 2018

Before GREGORY, Chief Judge, WYNN and THACKER, Circuit Judges.

Vacated by published opinion. Chief Judge Gregory wrote the opinion, in which Judge Wynn and Judge Thacker joined.

ARGUED: Austin Donald Gerken, Jr., SOUTHERN ENVIRONMENTAL LAW CENTER, Asheville, North Carolina, for Petitioners. Avi Kupfer, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C., for Respondents. Brooks Meredith Smith, TROUTMAN SANDERS LLP, Richmond, Virginia, for Intervenor. ON BRIEF: Amelia Burnette, J. Patrick Hunter, Asheville, North Carolina, Gregory Buppert, SOUTHERN ENVIRONMENTAL LAW CENTER, Charlottesville, Virginia, for Petitioners. Eric Grant, Deputy Assistant Attorney General, Andrew Mergen, J. David Gunter II, Environment and Natural Resources Division, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C.; Andrew Tittler, S. Amanda Bossie, Office of the Solicitor, DEPARTMENT OF THE INTERIOR, Washington, D.C., for Respondents. Andrea W. Wortzel, TROUTMAN SANDERS LLP, Richmond, Virginia, for Intervenor.

GREGORY, Chief Judge:

These consolidated cases present two challenges to agency actions that provided necessary approvals for the Atlantic Coast Pipeline (ACP). The challenges were brought by Defenders of Wildlife, the Sierra Club, and the Virginia Wilderness Committee (collectively, "Petitioners"). For the reasons that follow, we conclude that both agency decisions are arbitrary and capricious.

The first petition, No. 18-1083, concerns the U.S. Fish and Wildlife Service (FWS). Pursuant to the Endangered Species Act, FWS issued an Incidental Take Statement (ITS) authorizing the pipeline to "take" i.e., kill, harm, or harass five species that are listed as threatened or endangered. Petitioners challenged the ITS as arbitrary and capricious under § 706 of the Administrative Procedure Act (APA) because the amount of take authorized in the ITS (known as the "take limit") cannot be enforced. Petitioners identify two flaws that make the take limits unenforceable: first, FWS failed to set numeric limits on take of the five threatened and endangered species, and second, FWS failed to comply with the requirements for using habitat as a surrogate for a numeric limit. Although FWS is not required to set a numeric limit, it can only use a habitat surrogate if it demonstrates a causal link between the species and the delineated habitat, shows that setting a numerical limit is not practical, and sets a clear standard for determining when incidental take is exceeded. Here, FWS failed some or all of these requirements for all five challenged species. As such, FWS's take limits are not enforceable and therefore arbitrary and capricious.

The second petition, No. 18-1082, concerns the U.S. National Park Service (NPS). The pipeline's proposed route intersects the Blue Ridge Parkway, a unit of the National Park System managed by NPS. Invoking the Blue Ridge Parkway Organic Act, NPS issued a right-of-way permit allowing the pipeline to drill and pass underneath the Parkway surface. The pipeline will also carve a path through a nearby forest, affecting views from the Parkway's scenic overlooks. Petitioners Sierra Club and the Virginia Wilderness Committee argue that NPS lacked the authority to grant a right-of-way to a gas pipeline and that doing so violated the statutory mandate that agency decisions not be inconsistent with the Parkway's conservation purpose. As detailed below, we assume for purposes of this case that NPS has the requisite statutory authority but because NPS does not explain how the pipeline crossing is not inconsistent with the purposes of the Parkway and the overall National Park System, the permit decision is arbitrary and capricious.

Part I of this opinion will provide a brief background and address a statute of limitations question common to both cases. Part II will provide the relevant background facts and legal analysis for No. 18-1083 (FWS), while Part III will provide the relevant background facts and legal analysis for No. 18-1082 (NPS). Finally, having concluded that the respective agencies erred, Part IV will address a question of remedy common to both cases.

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I.

A.

The ACP is a 600-mile pipeline designed to transport natural gas from Harrison County, West Virginia, to the eastern portions of Virginia and North Carolina. J.A. 234. Constructing the pipeline would generally require a 125-foot right-of-way for most of the distance, which will disturb 11,776 acres of land. J.A. 553. Once completed, ACP would generally maintain a 50-foot permanent right-of-way along the length of the pipeline. J.A. 325.

Under the Natural Gas Act, the Federal Energy Regulatory Commission (FERC) is the agency responsible for giving final approval, in the form of a certificate of public convenience and necessity, for the construction of natural gas pipelines. 15 U.S.C. § 717f. The Natural Gas Act also requires applicants such as ACP to obtain "any permits, special use authorizations, certifications, opinions, or other approvals as may be required under Federal law." *N.Y. Dep't of Envtl. Conservation v. FERC*, 884 F.3d 450, 452 53 (2d Cir. 2018). FERC serves as the "lead agency" responsible for "coordinating all applicable Federal authorizations." 15 U.S.C. § 717n.

On October 13, 2017, FERC issued ACP a certificate of public convenience and necessity that authorized the construction and operation of the pipeline. J.A. 234 389. As it has done in other cases, FERC conditioned its approval of the pipeline on ACP receiving all "state and other federal authorizations required for the proposed project." *Del. Riverkeeper Network v. Sec'y Pa. Dep't of Envtl. Prot.*, 833 F.3d 360, 368 & n.5 (3d Cir. 2016); *see* J.A. 362 84 (listing conditions ACP must satisfy). Two of these

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authorizations must come from FWS and NPS. On October 16, 2017, FWS issued a biological opinion and incidental take statement that authorized the pipeline to take several endangered and threatened species. On December 12, 2017, NPS issued a right-of-way permit authorizing the pipeline to cross the Blue Ridge Parkway. Petitioners challenged both agency actions in this Court on January 19, 2018.

В.

The first question we must resolve is whether the Petitioners filed their challenges within the applicable statute of limitations. Federal Rule of Appellate Procedure 15(a) provides that "[r]eview of an agency order is commenced by filing, within the time prescribed by law, a petition for review[.]" Fed. R. App. P. 15(a)(1) (emphasis added).

The Petitioners filed their challenges within 95 days (No. 18-1083) and 38 days (No. 18-1082) of the agency decisions, respectively. In their opening brief, Petitioners invoked the six-year statute of limitation created for claims "against the United States," which applies generally to challenges brought under the APA. *See* 28 U.S.C. § 2401(a); *Jersey Heights Neighborhood Ass'n v. Glendening*, 174 F.3d 180, 186 (4th Cir. 1999) (applying § 2401(a) to APA challenges).

ACP argues that these challenges were actually brought under the Natural Gas Act, 15 U.S.C. § 717r(d)(1), which lacks a statute of limitations. Thus, ACP urges us to adopt the most closely analogous *state law* statute of limitations. ACP Resp. Br. 18 27 (citing *Reed v. United Transp. Union*, 488 U.S. 319, 323 24 (1989); *Agency Holding Corp. v. Malley-Duff & Assocs., Inc.*, 483 U.S. 143, 147 (1987); *DelCostello v. Int'l Bhd. of Teamsters*, 462 U.S. 151, 158 59 (1983)). ACP proposes the 30-day limitations period

applicable to petitions for review of state agency actions in West Virginia, Virginia, and North Carolina (the states through which the pipeline will be built). Such a short statute of limitations period, ACP argues, would comply with Congress's intent to create an expedited review process for agency decisions related to natural gas pipelines.

The problem with ACP's argument is that the cases on which it relies predate Congress's establishment of a four-year default statute of limitations for any "civil action arising under an Act of Congress enacted after" December 1, 1990. Judicial Improvements Act of 1990, Pub. L. No. 101 650, § 313, 104 Stat 5089, 5114 15 (codified at 28 U.S.C. § 1658(a)). This four-year default provision applies to any claim "made possible by a post-1990 enactment." *Jones v. R.R. Donnelley & Sons Co.*, 541 U.S. 369, 382 (2004). Congress specifically enacted § 1658(a) to "alleviat[e] the uncertainty inherent in the practice of borrowing state statutes of limitations." *Id*.

As Petitioners point out, Congress added 15 U.S.C. § 717r(d) in 2005. Energy Policy Act of 2005, Pub. L. No. 109-58, § 313(b), 119 Stat 594, 689 90. If § 717r(d) is the source of Petitioners' cause of action, then § 1658(a) applies and the statute of limitations is four years. The only other federal court to consider this issue also looked to § 1658(a) in declining to apply a more restrictive state limitations period. *Del. Riverkeeper Network v. Sec'y of Pa. Dep't of Envtl. Prot.*, 870 F.3d 171, 179 (3d Cir. 2017) (concluding that petitioner's challenge was timely under either § 1658(a) or the equitable doctrine of laches).

We need not decide whether the Natural Gas Act, which ACP cites as the cause of action, or the APA, which Petitioners cite as theirs, provides the applicable statute of

limitations. Petitioners filed their challenges to FWS and NPS after 95 and 38 days, respectively. By either measure, the petitions are timely.

II.

We turn first to petition No. 18-1083, in which Petitioners challenge the take limits set by FWS for five species that will be negatively impacted by the pipeline. We begin with the Endangered Species Act and the exception created for "incidental" take of threatened and endangered species. We next discuss how the Endangered Species Act obligated FWS to analyze how the pipeline would affect threatened and endangered species. We then summarize the statutory and regulatory requirements FWS must satisfy to issue a proper incidental take statement. Finally, we review in detail the agency's determinations about the five species at issue. We conclude that for each species, FWS failed to satisfy the requirements for a habitat surrogate and therefore failed to create enforceable take limits.

A.

1.

Congress enacted the Endangered Species Act in 1973 "to protect and conserve endangered and threatened species and their habitats." *Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 651 (2007). In doing so, Congress made a "conscious decision . . . to give endangered species priority over the 'primary missions' of federal agencies." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 185 (1978). Pursuant to Endangered

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Species Act § 4, FWS determines what species are endangered or threatened¹ and designates their critical habitats. 16 U.S.C. § 1533; *see Nat'l Ass'n of Home Builders*, 551 U.S. at 651; 50 C.F.R. § 17.11 (listing endangered and threatened wildlife).

To protect threatened and endangered species, Endangered Species Act § 9 and FWS regulations prohibit their "take." 16 U.S.C. § 1538(a)(1)(B) (endangered species); 50 C.F.R. § 17.21(c) (endangered species); 50 C.F.R. § 17.31 (threatened species). To "take" a species is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 C.F.R. § 1532(19). Harm and harassment include the disruption of normal behavioral patterns and indirect injury caused by habitat modification. 50 C.F.R. § 17.3; *Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or.*, 515 U.S. 687, 702 04 (1995). "Any person" who knowingly takes an endangered or threatened species is "subject to substantial civil and criminal penalties, including imprisonment." *Bennett v. Spear*, 520 U.S. 154, 170 (1997); *see* 16 U.S.C. § 1540(a), (b).

In 1982, Congress created a narrow exception to the prohibition against take: when "such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 16 U.S.C. § 1539(a)(1)(B); see Endangered Species Act Amendments of 1982, Pub. L. No. 97-304, § 6, 96 Stat. 1411, 1422. To take a species under this exception, agencies such as FERC or private entities taking species pursuant

¹ An endangered species is "any species which is in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(6). A threatened species is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id.* § 1532(20).

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to agency authority, such as ACP must receive a valid Incidental Take Statement from FWS. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(g)(7), (i). The amount of take set by the ITS creates a "'trigger' that, when reached, results in an unacceptable level of incidental take." *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife, Bureau of Land Mgmt.*, 273 F.3d 1229, 1249 (9th Cir. 2001).

2.

Building a natural gas pipeline implicates a number of federal laws, including the Endangered Species Act. J.A. 545–52. Pursuant to Endangered Species Act § 7, FERC must ensure that "any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species." 16 U.S.C. § 1536(a)(2). To satisfy this requirement, FERC must formally consult with FWS whenever a pipeline "may affect listed species or critical habitat." 50 C.F.R. § 402.14(a). FWS then provides FERC with a written statement (called a Biological Opinion) explaining "how the proposed action will affect the species or its habitat." *Bennett*, 520 U.S. at 158; *see* 16 U.S.C. § 1536(b)(3). If FWS concludes that the pipeline will adversely affect the species but "will not result in jeopardy or adverse habitat modification," then it must provide FERC with an ITS authorizing the anticipated

² "Jeopardize the continued existence of means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02.

incidental take and specifying the "impact of such incidental taking on the species." 16 U.S.C. § 1536(b)(4); see Bennett, 520 U.S. at 158.

In July 2017, FERC requested formal consultation with FWS about the ACP. J.A. 391. Three months later, FWS issued a Biological Opinion that addressed six threatened and endangered non-plant species: the Roanoke Logperch (a fish), the Clubshell (a mussel), the Rusty Patched Bumble Bee, the Madison Cave Isopod (a crustacean), the Indiana Bat, and the Northern Long-Eared Bat. J.A. 390–439. FWS concluded that the pipeline as a whole would not "jeopardize the continued existence of" the six species. J.A. 430–39. But because pipeline will adversely affect individuals from each species, FWS issued an ITS that set out the "amount or extent of take anticipated" by the ACP. J.A. 439–50.

Petitioners' sole challenge in this lawsuit is to the take limit set for five of the six species: the Clubshell, the Rusty Patched Bumble Bee, the Madison Cave Isopod, the Indiana Bat, and the Northern Long-Eared Bat.

B.

We have jurisdiction under the Natural Gas Act. 15 U.S.C. § 717r(d)(1). Because the Endangered Species Act does not specify a standard of review, "we apply the general standard of review of agency action established by" the APA. *Or. Nat. Res. Council v. Allen*, 476 F.3d 1031, 1036 (9th Cir. 2007). Under the APA, we "shall hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Because "resolution of this dispute involves primarily issues of fact" and "requires a high

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> level of technical expertise," we must defer to "the informed discretion of the responsible federal agencies." Marsh v. Or. Nat. Res. Council, 490 U.S. 360, 377 (1989) (quoting Kleppe v. Sierra Club, 427 U.S. 390, 412 (1976)). Nevertheless, we must conduct a "searching and careful" review to determine whether the agency's decision "was based on a consideration of the relevant factors and whether there has been a clear error of judgment." Id. at 378 (quoting Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971)).

> > C.

An ITS is a safe harbor: it allows an agency (here, FERC) to approve a project that takes threatened or endangered species without falling afoul of the Endangered Species Act. 50 C.F.R. § 402.14(i)(5); see Bennett, 520 U.S. at 170 ("Thus, the Biological Opinion's Incidental Take Statement constitutes a permit authorizing the action agency to 'take' the endangered or threatened species so long as it respects [FWS]'s 'terms and conditions.'"). "The action agency is technically free to disregard the Biological Opinion and proceed with its proposed action, but it does so at its own peril (and that of its employees), for 'any person' who knowingly 'takes' an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment." *Bennett*, 520 U.S. at 170 (citing 16 U.S.C. § 1540(a), (b)).

For an ITS to function as a safe harbor, FWS must set an incidental take limit that can be monitored and enforced. FERC is required to "report the progress of the action and its impact on the species to [FWS] as specified in the incidental take statement." 50 C.F.R. § 402.14(i)(3). If the "amount or extent of incidental taking . . . is exceeded,"

FERC "must reinitiate consultation *immediately*." 50 C.F.R. § 402.14(i)(4) (emphasis added).

Section 7 of the Endangered Species Act requires an ITS to "[s]pecif[y] the impact, i.e., the amount or extent, of such incidental taking on the species." 50 C.F.R. § 402.14(i)(1)(i); accord 16 U.S.C. § 1536(b)(4). This impact known as the incidental take limit must set a "trigger" that can be monitored and enforced, else it is arbitrary and capricious. Miccosukee Tribe of Indians of Fla. v. United States, 566 F.3d 1257, 1275 (11th Cir. 2009); accord Ariz. Cattle Growers' Ass'n, 273 F.3d at 1249; Wild Fish Conservancy v. Salazar, 628 F.3d 513, 531 32 (9th Cir. 2010) (stating that FWS must set "triggers that can be monitored"). Both FWS and our sister circuits have recognized that Congress intended for this trigger to be a specific number whenever possible. Interagency Cooperation Endangered Species Act of 1973, as Amended; Incidental Take Statements, 80 Fed. Reg. 26,832, 26,834 (May 11, 2015) (codified at 50 C.F.R. § 402.14(i)(1)(i)) (hereinafter "Incidental Take Statements") ("[FWS] acknowledge[s] congressional preference for expressing the impacts of take in incidental take statements in terms of a numerical limitation with respect to individuals of the listed species."); Miccosukee Tribe of Indians of Fla., 566 F.3d at 1274 75 (citing H.R. Rep. No. 97 567, at 27 (1982), as reprinted in 1982 U.S.C.C.A.N. 2807, 2827) ("Where possible, the impact should be specified in terms of a numerical limitation on the federal agency[.]")); accord Ariz. Cattle Growers' Ass'n, 273 F.3d at 1249 50. An ITS "that 'contains no numerical cap on take and fails to explain why it does not' normally violates" the

Endangered Species Act. Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1126 27 (9th Cir. 2012) (quoting Allen, 476 F.3d at 1037).

Here, FWS declined to set numeric limits on five of the six non-plant species that will be adversely affected by the pipeline. Instead, it set take limits as a "small percent," "majority" or "all" of the species within set geographic areas. As Petitioners point out, a "small percent" or a "majority" of a species is not an enforceable limit. FWS and ACP do not disagree. Instead, they claim that FWS used habitat surrogates.

A habitat surrogate is a way of defining take by the amount of adversely affected habitat rather than by the number of individuals harassed or killed. FWS has explained that habitat surrogates are "often more practical and meaningful to monitor project effects" because they can "provide a clear standard for determining when the amount or extent of anticipated take has been exceeded and consultation should be reinitiated." *Incidental Take Statements*, 80 Fed. Reg. at 26,839.

FWS regulations list three elements necessary for a proper habitat surrogate. First, FWS must include a description of "the causal link between the surrogate and take of the listed species." 50 C.F.R. § 402.14(i)(1)(i). A "causal link" is an "articulated, rational connection" between the activity and the taking of species. *See Ariz. Cattle Growers' Ass'n*, 273 F.3d at 1250 51. FWS establishes a causal link by examining the habitat requirements and behavior of the listed species and determining the effect of the expected habitat modification. *Incidental Take Statements*, 80 Fed. Reg. at 26,834, 26,842. Examples of a causal link include "the number of burrows affected or a quantitative loss of cover, food, water quality, or symbionts." *Id.* at 26,834 (quoting U.S. Fish & Wildlife

Serv., Procedures for Conducting Consultation and Conference Activities under § 7 of ESA 4-47 48 (Mar. 1998) (hereinafter "Endangered Species Consultation Handbook")).

Second, FWS must explain "why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed 50 C.F.R. § 402.14(i)(1)(i). There is no clear definition of what makes a numerical limit "not practical" (or not practicable), but FWS has indicated that the standard does not require impossibility. Instead, FWS has long encouraged the use of surrogates when the incidental take is "difficult to detect," which occurs "when the species is wide-ranging; has small body size; finding a dead or impaired specimen is unlikely; losses may be masked by seasonal fluctuations in numbers or other causes (e.g., oxygen depletions for aquatic species); or the species occurs in habitat (e.g., caves) that makes detection difficult." Endangered Species Consultation Handbook 4-52. FWS has also suggested that the cost of monitoring a species relative to the scope of the project can make a numeric limit impractical. Incidental Take Statements, 80 Fed. Reg. at 26,842. Nevertheless, our sister circuits have acknowledged Congress's preference for numerical limits where "possible" and found important FWS's ability to express take in numeric limits even when a species is difficult to detect. E.g., Miccosukee Tribe of Indians of Fla., 566 F.3d at 1274 75 (collecting cases); Ariz. Cattle Growers' Ass'n, 273 F.3d at 1249 (collecting cases).

Finally, FWS must set "a clear standard for determining when the level of anticipated take has been exceeded." 50 C.F.R. § 402.14(i)(1)(i). A "clear standard" must be able to "adequately trigger reinitiation of consultation," *Allen*, 476 F.3d at 1038;

it cannot be "vague and undetectable criteria," *Ariz. Cattle Growers' Ass'n*, 273 F.3d at 1250 51 (internal quotation marks omitted). Nor can the standard be left to "the unfettered discretion of the Fish and Wildlife Service, leaving no method by which the applicant or the action agency can gauge their performance." *Id.* at 1250. FWS has endorsed habitat surrogates that are coextensive with a project's scope i.e., the project can take all of the species within the bounds of the affected habitat provided that the authorized agency (here, FERC) "monitor[s] project impacts to the surrogate during the course of the action . . . [to] determine whether these impacts are consistent with the analysis in the biological opinion." *Incidental Take Statements*, 80 Fed. Reg. at 26,834, 26,841 42.³

Turning to petition No. 18-1083, the only issue presented is whether FWS properly employed a habitat surrogate for five of the endangered and threatened species that will be adversely affected by the pipeline. Specifically, the Petitioners argue that: FWS did not establish that a numeric take limit was impractical, particularly because FWS had previously adopted numeric limits for some of the same species; FWS did not establish a causal link between the pipeline and the habitat selected for some of the species; and the surrogate limits adopted are unenforceable because they set the vague take limits of a "small percent" or a "majority" of individuals. *See* 50 C.F.R.

³ Some eight years prior to this 2015 final rule, the Ninth Circuit expressed doubt about habitat surrogates that are coextensive with the project's own scope. *Allen*, 476 F.3d at 1039 40. Because Petitioners do not challenge the agency's determination, we assume without deciding that coextensive surrogates satisfy the Endangered Species Act.

§ 402.14(i)(1)(i). As explained in more detail below, we agree. Because our analysis differs for each of the five challenged species, we will discuss each one separately.

But first, we dispose of three overarching points. First, FWS claims that some numeric limits were not possible because either it lacked current survey information about many of the species or ACP had not completed the necessary surveys. This argument is "circular and unavailing." *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 422 F. Supp. 2d 1115, 1138 (N.D. Cal. 2006). FWS cannot escape its statutory and regulatory obligations by not obtaining accurate scientific information. *Id.*; *Allen*, 476 F.3d at 1037 38. Moreover, with one exception noted below, FWS "never states that it is not possible" to obtain or update the survey data and arrive at a numeric take limit. *Allen*, 476 F.3d at 1038. Instead, the agency only states that it and ACP have not actually done the surveys. *Id.* Thus, FWS's argument does not "establish the numerical measure's impracticality." *Id.*

Second, the agency argues that there was insufficient time for the agency or ACP to develop reliable survey information regarding certain of the species because the agency "must complete formal consultation on a short, ninety-day time timetable based on the 'best scientific and commercial data' *then* available." Gov't Br. 21 (citing 16 U.S.C. § 1536(a)(2)) (emphasis added). The agency incorrectly characterizes the law for at least two reasons. First, the statute does not require that the consultation be completed within 90 days. Rather, it states that the agency and FWS may extend the 90-day consultation period to and until 150 days without the consent of the applicant and even longer with the consent of the applicant. § 1536(b)(1)(A) (B). Accordingly, Congress

expressly contemplated that FWS might need more than 90 days to conduct a review and provided a mechanism for it to do so. Second, contrary to the agency characterization, FWS is not required to rely on "best scientific and commercial data' *then* available." Gov't Br. 21 (emphasis added). Rather, the statute requires that "each agency shall use the best scientific and commercial data available," § 1536(a)(2), regardless of whether the data is available at the time of the application. Accordingly, the statute does not foreclose FWS or an applicant from developing additional data. *See Allen*, 476 F.3d at 1038 (rejecting FWS determination that establishing numerical take limit was impractical due to lack of up-to-date surveys because agency never stated "that it is not possible to update the survey in order to estimate the number of takings, only that it has not actually done the surveys").

Tellingly, neither the statute, nor the agency's implementing regulation, nor the agency's *Endangered Species Consultation Handbook*, identify lack of time as a proper basis for concluding that setting a numerical limit is impractical. *See* H.R. Rep. No. 97-567, at 27 (1982) ("For example, it may not be possible to determine the number of eggs of an endangered or threatened fish which will be sucked into a power plant when water is used as a cooling mechanism."); *Incidental Take Statements*, 80 Fed. Reg. at 26,834 (stating that, "in many cases, the biology of the listed species or the nature of the proposed action makes it impractical to detect or monitor take of individuals of the listed species"); *id.* (providing as an example that calculating numerical take for pool fairy shrimp would be impractical because a single vernal pool "may contain thousands of individual shrimp as well as their eggs or cysts"); *Endangered Species Consultation*

Handbook, 4-52 (providing form ITS, which states "[The Wildlife Service] anticipates incidental take of (species) will be difficult to detect for the following reason(s): [Incidental take of actual species numbers may be difficult to detect when the species is wide-ranging; has small body size; finding a dead or impaired specimen is unlikely; losses may be masked by seasonal fluctuations in number or other causes (e.g., oxygen depletions for aquatic species); or the species occurs in a habitat (e.g. caves) that makes detection difficult.]"). Accordingly, we reject the agency's contention that lack of time is a proper basis for concluding establishing a numerical limit is impractical.

Third, although FWS and ACP both argue that the ITS passes muster, they cannot agree about what the ITS actually did. ACP claims that FWS set pure habitat surrogates; therefore, the "small percent" and "majority" language "was not meant to serve as a quantifiable limit on take" but instead "reflected FWS' position on the limited *effect* the authorized take was expected to have on the species." ACP Resp. Br. 43 (emphasis added); *see id* at 33–43, 47. FWS, by contrast, seems to interpret the ITS as setting both numeric and habitat take limits. Gov't Resp. Br. 29 ("Petitioners are correct that the ITS also estimates take for some of those species in terms of percentages of individuals[.]"); *id.* at 25–26 (defining take for Clubshell as one population); *id.* at 28 (stating that FWS allowed take of a "small percent" of Indiana Bats within a narrowly drawn area).

FWS and ACP cannot rewrite the ITS on appeal. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 50 (1983) ("[T]he courts may not accept appellate counsel's *post hoc* rationalizations for agency action."). Within a section titled "Amount or Extent of Take Anticipated," FWS prepared a table for each

species and stated that the reader should look to that table to locate the anticipated take limit. J.A. 440 43 (stating, for example, that the "anticipated take is described in Table 6 below" for the Clubshell). We review the plain language of the take limits as set forth by FWS in each table. *See State Farm*, 463 U.S. at 50. We also note that the inability of FWS and ACP to agree on exactly what level of incidental take is allowed only reinforces our conclusion that the ITS set vague and unenforceable limits.

1. Roanoke Logperch (*Percina rex*)

Before turning to the five challenged species, we take a moment to discuss briefly the sixth: the Roanoke Logperch, an endangered freshwater fish. Petitioners do not challenge the logperch take limit, but FWS's approach to the logperch is a useful comparator when evaluating its much different approach to the other five species.

The pipeline will cross four waterbodies known or with potential to support the logperch. J.A. 407. Neither ACP nor FWS conducted presence/absence surveys; instead, they assumed the presence of the logperch because the pipeline will affect potential habitat in areas known to support the logperch. J.A. 405. ACP threatens the logperch both indirectly due to increased sedimentation and directly where it crosses waterbodies with logperch present. J.A. 407, 418.

FWS estimated that a total of 150 logperch are expected to occur in the area affected by the pipeline. J.A. 406. It reached this number by using recent survey information for two of the four affected waterbodies. In the first waterbody, a 2017 survey observed 12 logperch. FWS multiplied that number by ten because "mark-recapture data indicates that only about 10% of [logperch] are actually detected during

surveys." This resulted in an estimated 120 total logperch. In the second waterbody, a 2012 survey observed one logperch. Adjusting by the same multiple of ten, FWS estimated there were ten total logperch there. The third and fourth waterbodies lacked recent survey information, but FWS believed the fish to be present at a density comparable to the second waterbody (i.e., 10). And 120 plus ten plus ten plus ten equals 150.

FWS set a take limit of 5 individual Roanoke Logperch through injury or death and 145 individuals through harm or harassment. J.A. 440. To arrive at this take limit, FWS divided the area of logperch habitat needed to actually build the crossing structures by the total area of logperch habitat at each pipeline crossing and determined that the crossings themselves will comprise 3.3 percent of the total affected habitat. Because FWS estimates that there are 150 logperch total in the area, this means 3.3 percent (or 5 logperch) will be directly killed by the crossings, while the other 145 will be harmed or harassed by increased sedimentation. *Id.* We note that FWS set a numeric take limit for the Roanoke Logperch despite using surveys from several years ago that observed only a few fish and despite the detection difficulties caused by the logperch's small size (five inches) and river habitat.

2. Clubshell (*Pleurobema clava*)

The Clubshell is an endangered mussel that grows to be about three inches long. J.A. 692. In the Monongahela River system of West Virginia, which contains only one Clubshell population in Hackers Creek, the Clubshell is in severe decline and is not reproducing. J.A. 401, 432. A 2009 survey at a long-term monitoring site in Hackers

Creek found 29 individuals; a 2014 survey found 19 individuals. J.A. 407. ACP will conduct construction in the upstream drainage area of Hackers Creek and will cross six of its tributaries. J.A. 407. The resulting sediment load will adversely impact the Clubshell population at Hackers Creek. J.A. 432.

FWS set the take limit as: killing a "[s]mall percent of individuals present within 585 m," and harming or harassing the "[m]ajority of individuals present within 585 m." J.A. 440 41. The agency explained that it "anticipates incidental take of clubshell will be difficult to detect for the following reason: up to 70% of a population can be distributed below the substrate surface." J.A. 440. Therefore, FWS concluded that the "level of take of this species can be anticipated by loss of habitat from 130 m downstream to 455 m upstream of Life's Run Bridge (County Route 14) (total of 585 m) because this area contains suitable clubshell habitat." J.A. 440. As part of the terms and conditions, FERC must collect all Clubshell in the 585-meter stretch of Hackers Creek. J.A. 444 45. The Clubshell will then be held at an approved facility for reintroduction after the pipeline is completed. *Id*.

The incidental take authorized here is not a proper habitat surrogate because it lacks the three necessary elements. First, there is no clear and enforceable standard of take. Instead, take is limited to a "small percent" and a "majority" of Clubshell within a fixed geographic area. Although the geographic bounds are fixed, FWS authorized the pipeline to take *only a subset of individuals located within those bounds*. But it is impossible to know the size of the subset i.e., how many individuals constitute a "small percent" or a "majority."

Second, FWS offered no explanation for why the habitat surrogate is limited to 130 meters downstream and 455 meters upstream of Life's Run Bridge. Although the Biological Opinion mentioned that the Hackers Creek Clubshell population is located at Life's Run Bridge, the geographic bounds of 130 meters downstream and 455 meters upstream are not explained anywhere else in the ITS or Biological Opinion. The arbitrariness of this range is particularly conspicuous considering that the pipeline will introduce sediment upstream of Life's Run Bridge, meaning that the sediment will flow through all of Hackers Creek, not just 585 meters of it.

Finally, FWS did not adequately explain why a numeric limit is not practical. The only proffered explanation is that Clubshell are difficult to detect because most of them live below the substrate surface. But FWS has been able to adequately survey Clubshell in the past; indeed, it knew there were 29 Clubshell in 2009 and 19 in 2014. *See Miccosukee Tribe of Indians of Fla.*, 566 F.3d at 1275 (finding unpersuasive FWS's argument that a species was difficult to detect when the record showed the species being counted regularly). Moreover, the ITS terms and conditions require FERC to *remove and store* the Hackers Creek Clubshell during the pendency of construction, evincing a clear expectation that FERC can locate them. And in a prior ITS, FWS was able to set numeric take limits for the Clubshell. *Biological Opinion on the Washington Crossing Bridge Project* 22 (Sept. 2, 2014) (setting a total incidental take of 18 Clubshell). ⁴

⁴ We take judicial notice of this FWS record, which is also available on FWS's website. *See Goldfarb v. Mayor & City Council of Balt.*, 791 F.3d 500, 508 (4th Cir. 2015); *Hall v. Virginia*, 385 F.3d 421, 424 & n.3 (4th Cir. 2004) (taking judicial notice of (Continued . . .)

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> In sum, the take limit for the Clubshell fails all three habitat surrogate requirements: it lacks a causal link between the specific 585-meter stretch of Hackers Creek and the local Clubshell population, it lacks an explanation as to why a numerical limit is impractical, and it lacks a clear enforcement standard. See 50 C.F.R. § 402.14(i)(1)(i). Because the ITS's Clubshell take limit is not a meaningful trigger, it violates the Endangered Species Act.

3. Rusty Patched Bumble Bee (*Bombus affinis*)

The Rusty Patched Bumble Bee (RPBB) was listed as endangered in January 2017. J.A. 401, 809 11. A 2017 survey found one bee in Bath County, Virginia, about a mile from the pipeline route. J.A. 408. FWS concluded that the magnitude of the Rusty Patched Bumble Bee's population losses "has greatly reduced the likelihood that the species is present elsewhere" along the pipeline route. J.A. 408. As a result, "comprehensive RPBB surveys were not conducted throughout the action area" in Virginia. J.A. 408.

Based on this single bee, FWS estimated that the Rusty Patched Bumble Bee is most likely to occur in a 653-hectare "high potential zone" near the pipeline. J.A. 408

publicly available information on state government's website); U.S. Fish & Wildlife Serv., Threatened & Endangered Biological Opinion (TEBO) (Apr. 10, 2018), https://www.fws.gov/northeast/endangered/TEBO/tebo %20index.html#G (saved as ECF opinion attachment 1). That FWS issued this Biological Opinion is not disputed. See Gov't Resp. Br. Mot. File Addendum 6, ECF No. 53.

When evaluating a challenged habitat surrogate, other courts have looked to FWS's ability to set numeric limits in other circumstances. E.g., Ctr. for Biological Diversity v. Bureau of Land Mgmt., 422 F. Supp. 2d 1115, 1138 (N.D. Cal. 2006) (noting that FWS had set numeric limits for the same species only two years prior).

10. The pipeline will directly affect approximately 7.3 hectares of this zone, which could "crush individuals, crush a colony, expose RPBBs to noise/vibration, and render habitat temporarily and permanently unsuitable." J.A. 421. After making a number of assumptions about bee and bee colony density, FWS estimated that one colony i.e., a cohesive biological unit of bees established every spring by a solitary queen and made up of her offspring, J.A. 807 is statistically likely to be present in the 7.3 hectares directly affected by the pipeline. J.A. 433.

FWS set the take limit as: killing "1 colony present within 7.3 [hectares]" and harming or harassing a "[s]mall percent of [queen bees] from 1 colony present within 7.3 [hectares]." J.A. 441. FWS explained that it "anticipates incidental take of RPBB will be difficult to detect for the following reasons: species has small body size, losses may be masked by seasonal fluctuations in numbers and other environmental factors, and species occurs in habitat (i.e., underground) that makes detection difficult." J.A. 441.

The incidental take authorized here is not a proper habitat surrogate because it lacks two of the three necessary elements. FWS has demonstrated a causal link between the bee and the geographic boundaries of the take limit: the pipeline will affect 7.3 hectares of high potential habitat for the Rusty Patched Bumble Bee, which *statistically* will affect only one Rusty Patched Bumble Bee colony. But FWS's incidental take limit is not a clear standard because it is not actually defined by the 7.3 hectares; instead, take is limited to exactly *one colony and a small percent of queen bees within the 7.3 hectares*. Neither one colony nor a small percent is an enforceable standard: There may be multiple colonies within the 7.3 hectares, FERC cannot know if taken bees are from the

fish.

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same colony or different colonies, and it is not clear what constitutes a "small percent" of queen bees. Moreover, FWS has not shown that a numeric limit is impractical.⁵ It claimed that it has "no accurate way to assess the status of the local population," J.A. 409 but, only a few months earlier, FWS issued its own survey protocols for the Rusty Patched Bumble Bee, J.A. 854 89, and it had conducted a prior survey that identified the lone bee. *See Miccosukee Tribe of Indians of Fla.*, 566 F.3d at 1275. Indeed, FWS managed to set a numeric limit for the logperch in spite of a survey that located only one

In sum, the take limit for the Rusty Patched Bumble Bee fails two of the habitat surrogate requirements: it lacks an explanation as to why a numerical limit is impractical, and it lacks a clear enforcement standard. *See* 50 C.F.R. § 402.14(i)(1)(i). Because the Rusty Patched Bumble Bee take limit is not a meaningful trigger, it violates the Endangered Species Act.

4. Madison Cave Isopod (*Antrolana lira*)

The Madison Cave Isopod (MCI) is a threatened subterranean freshwater crustacean about a half-inch in size. "The species is endemic to underground karst aquifer habitats and is restricted to the Shenandoah Valley, from Lexington, Virginia to Harpers Ferry, West Virginia." J.A. 608. The pipeline right of way, additional

⁵ Because a colony is a biological unit founded by a single queen and can vary in size, "one colony" cannot function as an enforceable numeric limit. FWS concedes as much by arguing that it used a habitat surrogate for the Rusty Patched Bumble Bee, Gov't Resp. Br. 25 26, since habitat surrogates cannot be used unless a numeric limit is impractical.

temporary work space, and access roads will affect "approximately 1,974 surface acres (approximately 0.74%)" of the isopod's potential habitat in Augusta County, Virginia. J.A. 411. Included in this area are Cochran's Cave and five sinkholes, which FWS assumed are connected and which provide a conduit for sediment and contaminants to the isopod's habitat. J.A. 411–12. Because FWS lacked the ability to survey the presence or abundance of the isopods, it assumed that they will be found in the pipeline project area. J.A. 411.

The pipeline will threaten the isopods by crushing them or introducing sediment that smothers them or their habitat. J.A. 422. Although there are no "localities" in the pipeline construction area where Madison Cave Isopods have been sampled, FWS arbitrarily decided that Cochran's Cave would serve as an undocumented isopod "locality" and then chose to use "localities as a surrogate for a population." J.A. 434. It concluded that a total of 896.7 surface acres of isopod potential habitat is within 0.5 miles of the construction activities that bisect Cochran's Cave. J.A. 434. Within the 896.7 acres, the pipeline will directly displace 11.2 surface acres. J.A. 434. Within the rest of the 896.7 acres, ground-disturbing activities could smother or crush the isopods. J.A. 422.

FWS set the take limit as: killing a "[s]mall percent of individuals present within 11.2 acres" and harming or harassing "[a]ll individuals present within 896.7 acres." J.A. 441 42. The agency explained that "incidental take of the MCI will be difficult to detect for the following reasons: small body size, finding a dead or impaired specimen is

unlikely, and species occurs in habitat (underground) that makes detection difficult." J.A. 441.

FWS has shown that a numeric limit is not practical here: the isopod is a half-inch crustacean that lives in underground aquifers. But the take limit fails as a habitat surrogate because it lacks the other two elements. First, FWS stated that the pipeline will affect 1,974 surface acres of MCI potential habitat, all of which it assumes contains isopods. But without providing a reasoned explanation, FWS arbitrarily limited the habitat surrogate to the 896.7 acres near Cochran's Cave. Second, the proffered take limits are not real surrogates: the authorized take limit is (in part) a "small percent" of isopods within the 11.2 acres that will be directly affected by the pipeline. But there is no precise way of measuring what a "small percent" of isopods would be, and thus no clear standard for enforcement.

In sum, the take limit for the Madison Cave Isopod fails to satisfy two of the habitat surrogate requirements: its causal link between the isopod and the geographic bounds of the take limit is arbitrary, and it lacks a clear enforcement standard. *See* 50 C.F.R. § 402.14(i)(1)(i). Because the Madison Cave Isopod take limit is not a meaningful trigger, it violates the Endangered Species Act.

5. Indiana Bat (*Myolis sodalis*)

The Indiana Bat (Ibat) is an endangered migratory bat. FWS estimated that, as of 2017, there are only 425 in Virginia and 1,076 in West Virginia. J.A. 412. The pipeline crosses the Indiana Bat Appalachian Mountain Recovery Unit, an area of protected

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Indiana Bat habitat that covers all of West Virginia and part of western Virginia.⁶ J.A. 412, 725. The pipeline will adversely affect Indiana Bats by temporarily or permanently removing 4,448 acres of suitable habitat in the Recovery Unit. J.A. 423 24. Based on survey data and seasonal movements, FWS defined four relevant categories of Indiana Bat habitat in the Recovery Unit: (1) suitable unoccupied summer habitat, i.e., habitat that is unoccupied during the summer; (2) known use summer habitat, i.e., habitat that is known to be used by the bats in the summer; (3) unknown use spring staging/fall swarming habitat, i.e., habitat near unsurveyed but potentially suitable winter hibernation quarters (known as "hibernacula"); and (4) known use spring staging/fall swarming habitat, i.e., habitat near known hibernacula. J.A. 412. The pipeline will affect these different habitats in the Recovery Unit as follows:

Habitat Category	Total (acres)
Suitable unoccupied summer habitat	3,275.382
Known use summer habitat	144.1
Unknown use spring staging/fall swarming habitat	178.1
Known use spring staging/fall swarming habitat	850.4
Total Acres of Recovery Unit	4,447.982

J.A. 413.

FWS set the take limit as:

Amount of Take Anticipated	Type of Take
Small percent of individuals present within	Harm, Harass,
1,637.69 acres of suitable unoccupied summer	Injure, or Kill
habitat	
Small percent of individuals within 144.1 acres	Harass

⁶ U.S. Fish & Wildlife Serv., *Indiana Bat Range Map* (Mar. 12, 2018), https://www.fws.gov/midwest/endangered/mammals/inba/rangemapinba.html (saved as ECF opinion attachment 2).

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of known use summer habitat	
Small percent of individuals present within 89.05	Harm, Harass,
acres of unknown use spring staging/fall	or Kill
swarming habitat	
Small percent of individuals present within 850.4	Harm, Harass,
acres known use spring staging/fall swarming	or Kill
habitat	

J.A. 442. The agency explained that it "anticipates incidental take of the Ibat will be difficult to detect for the following reasons: species has small body size, finding a dead or impaired specimen is unlikely, and species occurs in habitat (forest and caves) that makes detection difficult." J.A. 442. FWS concluded that the "take of this species can be anticipated by loss of 4,447.982 acres because this area contains suitable Ibat habitat." J.A. 442. But FWS imposed a 0.5 multiplier on the affected acreage for two of the four habitat categories suitable unoccupied summer habitat and unknown use spring staging/fall swarming habitat purportedly "[t]o account for differences in Ibat use of the habitat categories." J.A. 442.

The incidental take authorized here is not a proper habitat surrogate because it lacks the three necessary elements. First and most significantly, it is not a true habitat surrogate: take is limited to a "small percent" of Indiana Bats within each geographic area. Although the geographic bounds are fixed, the pipeline can *only take a subset of individuals located within those bounds*. But it is impossible to know what a "small percent" of bats is. Therefore, there is no clear and enforceable standard of take.

Second, two of the chosen geographic bounds are arbitrary. FWS knew that the pipeline will directly affect 3,275.382 acres of suitable unoccupied summer habitat and 178.1 acres of unknown use spring staging/fall swarming habitat. Yet, without any

explanation, the agency set the take limit for these two habitats at half of these acreages. In other words, FWS set the take limit at half the affected bat habitat that it knows the pipeline is going to affect. Even if FWS removed the words "small percent of individuals" from the take limit, the limit would still fail as a habitat surrogate because FWS knows that the pipeline will exceed the geographic bounds. Oddly, despite the ITS clearly showing the use of the 0.5 multiplier on two of the four habitats, both FWS and ACP claim that the habitat surrogate is actually the full 4.448 acres directly impacted by the pipeline. ACP Resp. Br. 40; Gov't Resp. Br. 27 28 & n.5. ACP actually seems unaware that FWS arbitrarily reduced the habitat surrogate to below the 4,448 affected acres. Compare ACP Resp. Br. 40 (stating that the habitat surrogate is 4,448 acres), with ACP Resp. Br. 46 (stating that the habitat surrogate applies to "individuals present within 1,637.69 acres of suitable unoccupied habitat, 144.1 acres of known use summer habitat. 89.05 acres of unknown use spring staging / fall swarming habitat and 850.4 acres of known use spring staging / fall swarming habitat" even though these four numbers add up only to 2721.24 acres).

Finally, FWS has not shown that a numeric limit is impractical. The bats may be small, but FWS has been able to survey them in the past. Indeed, FWS made precise estimates as recently as 2017, determining that there are 425 bats in Virginia and 1,076 in West Virginia. *See Miccosukee Tribe of Indians of Fla.*, 566 F.3d at 1275. Moreover, FWS has previously issued incidental take statements with numeric limits for the Indiana Bat, even while recognizing that the bat is difficult to detect. *Update to the Biological Opinion on the 2014 Revision of the George Washington National Forest Land and*

Resources Management Plan 2 (April 21, 2014) (setting an "incidental take of up to 7 Indiana bats on an annual basis as the result of oil and gas leasing, prescribed fire, timber harvest, salvage activities, wildlife habitat management, and special use activities"); Biological Opinion on Enbridge Pipelines (FSP) LLC's Flanagan South Pipeline Project 64 65 (July 24, 2013) (setting incidental take of 19 Indiana bats and 120 reproductive female Indiana bats; noting that take will be measured by "observing mortality or injury" and by "the number of active maternity roost trees removed"); Biological Opinion on the 2003 Revision of the Jefferson National Forest Land and Resource Management Plan 33 34 (Jan. 13, 2004) (noting that the incidental take of the Indiana Bat in the Jefferson National Forest will be difficult to quantify and detect, but nevertheless estimating "there may be up to 10 Indiana bats on the [Forest] incidentally taken on an annual basis through actions that kill, harm, or harass"). 7

In sum, the take limit for the Indiana Bat fails all three habitat surrogate requirements: its causal link between the Indiana bat and the geographic bounds of the take limit is arbitrary, it lacks an explanation as to why a numerical limit is impractical,

As explained in note 4, *supra*, we also take judicial notice of these FWS records, two of which are available on FWS's website. *See Goldfarb*, 791 F.3d at 508; *Hall*, 385 F.3d at 424 & n.3 (taking judicial notice of publicly available information on state government's website); U.S. Fish & Wildlife Serv., *Threatened & Endangered Biological Opinion (TEBO)* (Apr. 10, 2018), https://www.fws.gov/northeast/endangered/TEBO/tebo_%20index.html (saved as ECF opinion attachment 1); U.S. Fish & Wildlife Serv., *Midwest Region Biological Opinions* (June 11, 2018), https://www.fws.gov/midwest/endangered/section7/r3bo.html (saved as ECF opinion attachment 3). That FWS issued these Biological Opinions is not disputed. *See* Gov't Resp. Br. Mot. File Addendum 6, ECF No. 53.

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and it lacks a clear enforcement standard. See 50 C.F.R. § 402.14(i)(1)(i). Because the Indiana Bat take limit is not a meaningful trigger, it violates the Endangered Species Act.

6. Northern Long-Eared Bat (Myolis septentrionalts)

The Northern Long-Eared Bat (NLEB) is a threatened migratory bat. Pipeline construction will remove 171 acres of trees within five miles of a Northern Long-Eared Bat hibernaculum identified as PH-S018. J.A. 425. In 2016, FWS promulgated a generally applicable final rule that governs most incidental take of the Northern Long-Eared Bat. *Endangered and Threatened Wildlife and Plants; 4(d) Rule for the Northern Long-Eared Bat,* 81 Fed. Reg. 1900 (Jan. 14, 2016) (codified at 50 C.F.R. § 17.40). Pursuant to this rule, ACP can conduct incidental take of the bat anywhere more than 0.25 miles away from hibernaculum PH-S018. J.A. 442. In the ITS at issue here, FWS addressed only the incidental take that will occur within a quarter mile of hibernaculum PH-S018. ACP will affect 0.4 acres of that quarter-mile radius, adversely impacting the Northern Long-Eared Bat's ability to forage for food and roost and rendering the habitat permanently unsuitable. J.A. 425, 443.

FWS set the take limit as: harming or harassing a "[s]mall percent of individuals present within 0.4 acres." J.A. 443. The agency explained that "incidental take of NLEB will be difficult to detect for the following reasons: species has small body size, finding a dead or impaired specimen is unlikely, and species occurs in habitat (forest and caves) that makes detection difficult." J.A. 443.

The incidental take authorized here is not a proper habitat surrogate because it lacks two of the three necessary elements. We find that FWS has demonstrated a causal

link between the Northern Long-Eared Bat and the 0.4 acres listed in the take limit. But, as with the other species, the take limit is not a true habitat surrogate: take is limited to a "small percent" of Northern Long-Eared Bats within the 0.4 acres. Although the geographic bounds are fixed, the pipeline can *only take a subset of individuals located within those bounds*. And it is impossible to know how many bats constitute a "small percent." Therefore, there is no clear and enforceable standard of take. Moreover, FWS has not shown that a numeric take limit is impractical in such a small geographic area.

In sum, the take limit for the Northern Long-Eared Bat fails two of the habitat surrogate requirements: it lacks an explanation as to why a numerical limit is impractical, and it lacks a clear enforcement standard. *See* 50 C.F.R. § 402.14(i)(1)(i). Because the Northern Long-Eared Bat take limit is not a meaningful trigger, it violates the Endangered Species Act.

* * *

We find that FWS has failed to create proper habitat surrogates, failed to explain why numeric limits are not practical, and failed to create enforceable take limits for the Clubshell, the Rusty Patched Bumble Bee, the Madison Cave Isopod, the Indiana Bat, and the Northern Long-Eared Bat. Because FWS's vague and unenforceable take limits are arbitrary and capricious, we vacated the ITS pending the issuance of this opinion. *Sierra Club v. United States Dep't of the Interior*, 722 F. App'x 321, 322 (4th Cir. 2018).

III.

petition before turning first to standing and next the merits.

Appeal: 18-1082

We next address petition No. 18-1082, which challenges the National Park Service (NPS)'s decision to issue a permit allowing the ACP to cross the Blue Ridge Parkway. Petitioners Sierra Club and Virginia Wilderness Committee⁸ argue that granting a right-of-way to a gas pipeline exceeds NPS's statutory authority. They also argue that the ACP permit violates a statutory requirement that all agency authorizations be consistent with parkway purposes. NPS challenges Petitioners' standing to bring this petition, while both

A.

NPS and ACP contest the merits. We begin by briefly reciting the facts relevant to this

The Blue Ridge Parkway is a component of the National Park System, linking the Shenandoah National Park in Virginia to the Great Smoky Mountains National Park in North Carolina. 16 U.S.C. § 460a-2. Like the rest of the National Park System, the Parkway is managed by NPS. According to NPS's Management Plan, the Blue Ridge Parkway serves not only as a connector between destinations but also as a recreational and scenic site in itself. J.A. 623 24.

The ACP's proposed pathway intersects with the Blue Ridge Parkway. Accordingly, FERC's final approval of the pipeline hinges on NPS granting a right-of-way to cross the Parkway. As proposed, the pipeline would drill and pass underneath the Parkway without breaching the Parkway's surface. However, the proposed route would

⁸ The Defenders of Wildlife is a petitioner in only No. 18-1083. For purposes of this section, we use "Petitioners" to refer to the Sierra Club and the Virginia Wilderness Committee.

require removing all of the trees from a portion of a nearby forest, leaving a vertical clearing that would be visible from the Parkway. J.A. 1018. During initial construction of the pipeline, that clearing would be 125 feet wide. Once construction is complete, the clearing would be reduced to a permanent 50-foot wide corridor, reserved for pipeline maintenance purposes. J.A. 325, 1035.

A visual impact study conducted by ACP and overseen by NPS concluded that the corridor would be visible from at least one key observation point along the Parkway, thus significantly decreasing the park's scenic value. J.A. 1020. Specifically, the analysis concluded that "[v]iews of the ACP corridor from the Three Ridges overlook . . . would likely be inconsistent with NPS management objectives, given the proximity to the viewer, the axial nature of the view, and the corridor's contrast with the surrounding forest." J.A. 1020.

On December 12, 2017, NPS issued a revocable permit granting right-of-way to ACP, subject to a list of terms and conditions. The permit cites only 16 U.S.C. § 460a-8 for its statutory authority. J.A. 897. The permit decision does not reference any harm to the Parkway's scenic or conservation value or the effectiveness of any mitigation strategies.

Petitioners now seek review of the right-of-way permit, arguing that NPS failed to comply with the Mineral Leasing Act and the Blue Ridge Parkway Organic Act. 30 U.S.C. § 185; 16 U.S.C. §§ 460a-3, 460a-3.

B.

We first address standing. Petitioners Sierra Club and the Virginia Wilderness Committee are organizational plaintiffs that have associational standing to sue "on behalf of [their] members when [their] members would otherwise have standing to sue in their own right." *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 180 81 (2000). For the members to establish standing, they, like all plaintiffs, "must show (1) [they have] suffered an 'injury in fact' that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Id.* (citing *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 61 (1992)). For the reasons below, we conclude that Petitioners (via their members) have met the requirements of Article III standing.

Members of the petitioning environmental groups aver that they regularly use and enjoy the Blue Ridge Parkway and its scenic views. Petitioners Opening Brief Addendum (Pet. Add.) 115, 126, 130, 171. One member avers that she and her husband have enjoyed using the Three Ridges Overlook for the past thirty-five years. Pet. Add. 117. Other members similarly affirm in their affidavits that they have been to Three Ridges in the past and intend to visit it regularly as part of their hikes and drives in the

⁹ Associational standing also requires that "the interests at stake [be] germane to the organization's purpose, and [and that] neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." *Laidlaw Envtl. Servs.*, 528 U.S. at 180 81. These elements of standing are not contested; it is clear that environmental preservation is germane to Petitioners' organization purpose and that individual participation by their members is unnecessary.

future because it is a particularly beautiful and cherished section of the Parkway. Pet. Add. 131, 167, 173. One of the members also owns a home near the Parkway, near where the construction is expected to occur. He expresses concerns about not only the pipeline's impact on the scenery he enjoys but also the noise and pollution expected to be caused by the drilling operation, which may affect his home. Pet. Add. 161–62, 164.

The affidavits provided by Petitioners' members sufficiently demonstrate injury in fact. "[E]nvironmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity." *Laidlaw Envtl. Servs.*, 528 U.S. at 183 (internal quotation marks and citation omitted). Here, the affidavits establish the members' longstanding history of enjoying not just the Blue Ridge Parkway generally but the Three Ridges Overlook specifically. The pipeline's construction and maintenance corridor would be visible from the Overlook and lessen the aesthetic value of the Parkway. Because the pipeline would prevent the members from enjoying the full beauty of the Parkway and the Overlook, they have established injury in fact.

Petitioners have also shown that their members' injuries are fairly traceable to, or caused by, NPS's right-of-way decision. To establish traceability, Petitioners' members must show that the challenged action is "in part responsible for frustrating" their ability to enjoy the Blue Ridge Parkway. *See Libertarian Party of Va. v. Judd*, 718 F.3d 308, 316 (4th Cir. 2013). Here, NPS authorized the pipeline to cross the Blue Ridge Parkway near the Three Ridges Overlook. That crossing then created the need for the nearby construction and maintenance corridor that would diminish the Parkway's scenic value.

In other words, NPS enabled and virtually ensured the alleged harm to the Parkway's aesthetic value.

To the contrary, NPS argues that the alleged injuries are not directly caused by the segment of the pipeline that crosses the Parkway. Specifically, NPS emphasizes that the pipeline proceeds underneath the Parkway and does not disturb the Parkway's surface as it crosses. And, although the pipeline's construction and maintenance corridor will scar a nearby forest visible from the Parkway, NPS disclaims all responsibility because that corridor resides on federal lands not managed by NPS and does not require NPS authorization. 10 The problem with this argument is that the causation element of standing does not require the challenged action to be the sole or even immediate cause of the injury. See Bennett, 520 U.S. at 168 69 ("This wrongly equates injury 'fairly traceable' to the defendant with injury as to which the defendant's actions are the very last step in the chain of causation."); Libertarian Party of Va., 718 F.3d at 315 16. Here, without NPS's grant of a right-of-way, the pipeline could not have been authorized in its currently proposed form. It therefore cannot be said that Petitioners' injuries are "the result of the independent action of some third party not before the court." See Bennett, 520 U.S. at 168 69 (citation omitted) (holding that injuries were fairly traceable to Fish and Wildlife Service's biological opinion even though another agency had to decide how to proceed in

¹⁰ We find it remarkable that counsel representing the National Park Service, which is charged with "provid[ing] for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations," would seem to take a litigation position that regards the premier conservation agency's role as no more than highway maintenance. *See* 54 U.S.C. § 100101.

light of biological opinion); see also Metro. Wash. Airports Auth. v. Citizens for Abatement of Aircraft Noise, Inc., 501 U.S. 252, 264 65 (1991) (finding standing to challenge constitutionality of Board of Review's veto power over agency's air traffic plan even though injuries were directly caused by agency's proposed plan and not Board's veto power). We accordingly reject NPS's efforts to elevate Petitioners' burden of proving causation and conclude that the alleged injuries are fairly traceable to the agency.

Finally, and for similar reasons, Petitioners have demonstrated redressability. To satisfy this element of standing, Petitioners must show that "it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Laidlaw Envtl. Servs.*, 528 U.S. at 181. Petitioners "need not show that a favorable decision will relieve [their] every injury." *Larson v. Valente*, 456 U.S. 228, 242–44 & n.15 (1982). Instead, Petitioners need only show that they "personally would benefit in a tangible way from the court's intervention." *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 162 (4th Cir. 2000) (en banc) (citation omitted). In this case, if this Court were to invalidate the NPS permit as requested, the pipeline cannot exist in its proposed form with its current authorizations and would have to be re-authorized with a new permit or possibly a new route to proceed. See 15 U.S.C. §§ 717f, 717n; *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 240 (D.C. Cir. 2013) ("Before a company may construct a facility that transports natural gas, it must obtain from FERC a certificate

¹¹ As noted previously, FERC's authorization for ACP to begin construction is conditioned on the existence of valid authorizations from both FWS and NPS. Absent such authorizations, ACP, should it continue to proceed with construction, would violate FERC's certificate of public convenience and necessity. *See* J.A. 362 84.

of public convenience and necessity, and comply with all other federal, state, and local regulations not preempted by the NGA." (citation omitted)). Absent the pipeline crossing, there would be no associated construction and maintenance corridor nearby to interfere with the recreational use of the Parkway and the Overlook. *See Metro. Wash.*, 501 U.S. at 264 65 (holding that injuries were redressable because relief would stop implementation of air traffic plan expected to cause noise and pollution). Thus, Petitioners' injuries are redressable because granting the requested relief would at least mitigate, if not eliminate, the alleged harm.

NPS nonetheless argues that the pipeline might be re-routed in a way that remains close to the Blue Ridge Parkway such that it could still disrupt views from the Parkway without intersecting it. However, this argument is mere speculation. NPS has not provided any support for its claim that the pipeline would materially affect views from the Parkway even if ACP were denied a right-of-way. The crossing of the Parkway necessitated the maintenance corridor that harms views from the Parkway, and we simply see no reason why the pipeline would clear and maintain a permanent corridor near the Parkway if no crossing is (or can be) permitted by NPS. Just as Petitioners cannot establish redressability via speculation, NPS cannot simply hypothesize as to possible future harm to overcome the fact that a favorable ruling would redress Petitioners' only injury at this time.

Even assuming that such a re-routing were possible or even likely, NPS's argument still fails. The removal of even one obstacle to the exercise of one's rights, even if other barriers remain, is sufficient to show redressability. *See Larson*, 456 U.S. at

242 43 (holding that plaintiffs had standing to challenge one part of state law requiring registration of charitable organizations, even if plaintiffs might ultimately be required to register under another provision). Moreover, an opportunity to enjoy the unadulterated views of the Parkway and the Overlook, even if only temporarily until a new route or permit is authorized, is itself a "tangible" benefit. *See Gaston Copper Recycling Corp.*, 204 F.3d at 162.

In sum, Petitioners have shown that their members will suffer an injury in fact that is at least partly caused by NPS's actions and that is likely to be redressed by a favorable ruling. Because their members have shown that they would have standing in their own right, Petitioners have associational standing to bring this suit.

C.

We now turn to the merits of the petition, which presents two lines of argument against NPS's issuance of the right-of-way permit. First, Petitioners argue that NPS lacks general statutory authority to grant rights-of-way for oil and gas pipelines. Second, assuming such general authority exists, they argue that issuing the permit in this case violates the authorizing statute because it is not consistent with parkway purposes. Answering these questions requires us to interpret three statutory provisions the two general right-of-way provisions under the Blue Ridge Parkway Organic Act and the definitional provision of the Mineral Leasing Act, which purportedly constrains agency authority under the Organic Act. We first consider what deference we owe to the agency's interpretation of these statutes and then address the parties' arguments.

1.

The parties seem to assume, without any analysis, that NPS's interpretation of the relevant statutes is eligible for Chevron review. See Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 843 (1984). However, as our sister circuits have held, parties "cannot waive the proper standard of review by failing to argue it." See U.S. v. Freeman, 640 F.3d 180, 186 (6th Cir. 2011) (internal quotation marks omitted); accord Worth v. Tyer, 276 F.3d 249, 262 n.4 (7th Cir. 2001) ("[T]he court, not the parties, must determine the standard of review, and therefore, it cannot be waived."); Am. Soc. of Composers, Authors & Publishers v. Showtime/The Movie Channel, Inc., 912 F.2d 563, 569 (2d Cir. 1990) (rejecting appellant's and appellee's proposed standard of review). Nor can parties "determine this court's standard of review by agreement." K & T Enters., Inc. v. Zurich Ins. Co., 97 F.3d 171, 175 (6th Cir. 1996). We therefore must independently assure ourselves that any statutory interpretation provided by NPS qualifies for Chevron review and if not, whether it is entitled to a lesser form of deference, such as that afforded under Skidmore. See United States v. Mead Corp., 533 U.S. 218, 226 27 (2001) (discussing Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944)); see also Pereira v. Sessions, 138 S. Ct. 2105, 2120 (2018) (Kennedy, J., concurring) (cautioning courts against abdication of judicial role by engaging in "reflexive deference" to agency decisions). For the reasons below, we conclude that the agency's statutory interpretation is not entitled to *Chevron* deference or *Skidmore* respect.

As the Supreme Court held in *Mead*, only an agency interpretation that carries the force of law is *Chevron*-eligible. 533 U.S. at 226 27 (holding that Customs' ruling letter classifying day-planners as "diaries" for tariff purposes does not carry force of law). An

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agency interpretation carries force of law when, first, Congress has "delegated authority to the agency generally to make rules" and, second, the "agency interpretation claiming deference was promulgated in the exercise of that authority." *Id*.

This case concerns the scope of authority granted by 16 U.S.C. § 460a-3 and § 460a-8 and the effect, if any, of the Mineral Leasing Act, 30 U.S.C. § 185, on those two provisions. But NPS, in its permit decision, interpreted only one of these provisions: § 460a-8. The permit does not even cite, let alone interpret, 16 U.S.C. § 460a-3 and 30 U.S.C. § 185. Thus, as to those two provisions, there is simply no agency interpretation that can claim deference, under *Chevron* or otherwise. ¹² Meanwhile, the arguments that NPS's appellate counsel has marshalled in the agency's defense are merely litigation positions that do not reflect an exercise of delegated legislative authority and agency expertise and are not eligible for any deference. *See Knox Creek Coal Corp. v. Sec'y of Labor, Mine Safety & Health Admin.*, 811 F.3d 148, 159 (4th Cir. 2016); *see also Alaska v. Fed. Subsistence Bd.*, 544 F.3d 1089, 1095 (9th Cir. 2008) ("We do not afford *Chevron* or *Skidmore* deference to litigation positions unmoored from any official agency interpretation because 'Congress has delegated to the administrative official and not to

¹² As to the Mineral Leasing Act in particular, this Court also would not defer to any NPS interpretation because NPS is not the agency charged with implementing the statute. *See* 30 U.S.C. § 185; *see King v. Burwell*, 135 S. Ct. 2480, 2489 (2015) (holding that Congress did not delegate health insurance policy to Internal Revenue Service); *Gonzales v. Oregon*, 546 U.S. 243, 267 (2006) (holding that statute did not delegate authority to Attorney General to make medical judgments); *Soliman v. Gonzales*, 419 F.3d 276, 281 (4th Cir. 2005) (holding that federal agency's interpretation of state law was not entitled to deference). Indeed, the National Park System is expressly excluded from the coverage of the Mineral Leasing Act.

appellate counsel the responsibility for elaborating and enforcing statutory commands." (quoting *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 212 (1988))).

We now turn to the only relevant interpretation that NPS has rendered its invocation of 16 U.S.C. § 460a-8. In its permit decision, NPS concluded that "§ 460a-8 authorizes the Secretary of the Interior to grant revocable licenses or permits for rights-of-way over, across, and upon Parkway lands, under such terms and conditions as he may determine to be consistent with the use of such lands for parkway purposes." J.A. 897. This near-verbatim recitation of § 460a-8 is not accompanied by any explanation or rationale. Nor does the boilerplate language specifically address authorizations concerning natural gas pipelines, the focus of this case.

Applying *Mead* to NPS's interpretation of § 460a-8, the first consideration is whether Congress has delegated power to the agency to make legislative-type determinations. *See A.T. Massey Coal Co. v. Holland*, 472 F.3d 148, 166 (4th Cir. 2006); *see also Mead*, 533 U.S. at 232 33. Section 460a-8 does not expressly delegate to the agency any rulemaking or formal adjudicatory power and appears to contemplate case-by-case determinations of applications for rights-of-way. *See* 16 U.S.C. § 460a-8. However, the absence of an explicit delegation is not conclusive and, at this juncture, we need not decide whether § 460a-8 implicitly confers on the agency the power to "stand[] in the shoes of Congress." *See A.T. Massey*, 472 F.3d at 166. We leave this delegation question for another day because the right-of-way permit clearly fails *Mead*'s second inquiry.

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Even assuming that Congress has delegated interpretative power to NPS, Mead requires that the agency actually exercise that delegated authority before it can receive deference for its interpretation. A.T. Massey, 472 F.3d at 166. To determine whether an agency has exercised its power to make legislative-type determinations, we look for procedural hallmarks of legislative decision-making. Id. at 166 67. At minimum, agency decisions must have future application to claim rulemaking power. See, e.g., Knox Creek, 811 F.3d at 159; Martinez v. Holder, 740 F.3d 902, 909 10 (4th Cir. 2014) (collecting cases); Carpio v. Holder, 592 F.3d 1091, 1097 (10th Cir. 2010) ("When, as here, the agency's interpretation was issued in an adjudication, we must consider whether the decision constitutes binding precedent within the agency."). Thus, agency decisions that are not precedential and binding within the agency itself generally do not qualify for Chevron. 13 See Olson v. Fed. Mine Safety & Health Review Comm'n, 381 F.3d 1007, 1014 (10th Cir. 2004) ("Indeed, it would be extremely odd to give [agency] decisions greater legal force in court than they have within the agency itself." (citation omitted)). In addition to precedential value, other indicators of a legislative-type decision include the agency "weighing conflicting policies, considering adversarial viewpoints," and using "a relatively formal administrative procedure tending to foster the fairness and deliberation that should underlie a pronouncement of law." Knox Creek, 811 F.3d at 159 (citations and quotation marks omitted).

¹³ Indeed, *Mead* noted that even precedential decisions may not always be *Chevron*-eligible. 533 U.S. at 232 ("[P]recedential value alone does not add up to *Chevron* entitlement.").

In this case, the right-of-way permit lacks virtually all of the procedural hallmarks of a legislative-type determination. First, the permit has no precedential value because it does not bind third-parties or otherwise set forth a general rule that controls future cases. See High Sierra Hikers Ass'n v. Blackwell, 390 F.3d 630, 648 (9th Cir. 2004) ("The Forest Service was not acting with the force of law in this case because it was granting permits, not acting in a way that would have precedential value for subsequent parties."). Instead, the permit is no more than an agreement between signatories. See J.A. 898, 909. Second, the NPS decision does not indicate that there was any adversarial or deliberative process where opposing views were presented or considered, nor does the decision address any opposing views. See J.A. 897 909; cf. Doe v. Leavitt, 552 F.3d 75, 81 (1st Cir. 2009) (giving deference to generally applicable interpretation that resulted from "structured" process that "allowed for written submissions by all affected parties"). Thus, an NPS right-of-way permit is no more formal than the ruling letters at issue in Mead, which classified products for purposes of imposing tariffs on specific parties without the use of notice-and-comment or any other "lawmaking pretense." See 533 U.S. at 232 34. We therefore conclude that the right-of-way permit here cannot be fairly characterized as "the exercise of a congressionally delegated legislative function." The Wilderness Soc'y v. U.S. Fish & Wildlife Serv., 353 F.3d 1051, 1067 (9th Cir. 2003) (en banc). Because it fails *Mead*'s second inquiry, the permit is not eligible for *Chevron* deference.

Having determined that NPS's interpretation of § 460a-8 is not entitled to *Chevron* review, we next consider whether it is entitled to a lesser form of deference under

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Skidmore. "The weight of such a judgment . . . depend[s] upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control." Skidmore, 323 U.S. at 140. Here, as explained above, NPS's invocation of § 460a-8 is a one-sentence recitation of statutory text without any accompanying explanation. And, because NPS makes no effort to specifically apply § 460a-8 to natural gas pipelines or to evaluate contrary arguments, its interpretation wholly lacks explanatory and persuasive power. We therefore accord it no Skidmore respect, and the agency's appellate counsel's post hoc interpretation of § 460a-8, like its interpretation of § 460a-3 and the Mineral Leasing Act, also warrants no deference. See Knox Creek, 811 F.3d at 159; Fed. Subsistence Bd., 544 F.3d at 1095.

Accordingly, we interpret the relevant statutory provisions *de novo*.

2.

We first turn to the Mineral Leasing Act (MLA), codified at 30 U.S.C. § 185. The MLA authorizes the Interior Department to grant rights-of-way across "Federal lands" for oil or gas pipelines, provided that such pipelines satisfy an extensive list of conditions. *See* 30 U.S.C. § 185. The statute defines "Federal lands" as "all lands owned by the United States except lands in the National Park System." 30 U.S.C. § 185(b). The question here is whether the MLA's omission of national parks precludes NPS from granting rights-of-way to oil and gas pipelines. For the reasons below, we conclude that

¹⁴ The MLA's definitional provision contains two other exceptions not relevant to this case. *See* 30 U.S.C. § 185(b).

the MLA creates a separate scheme for regulating pipeline crossings on non-park lands and that it does not diminish NPS's authority to manage the National Park System.

Because the MLA does not authorize rights-of-way across national parks, Petitioners draw the negative implication that Congress has forbidden oil and gas pipelines from crossing the National Park System. For support, Petitioners cite to *Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, where the Supreme Court held that "the meaning of one statute may be affected by other Acts, particularly where Congress has spoken subsequently and more specifically to the topic at hand." 529 U.S. 120, 133 (2000).

However, *Brown & Williamson* is inapposite. There, the Supreme Court denied the Food and Drug Administration (FDA) the power to regulate tobacco because Congress had "enacted several statutes addressing the particular subject of tobacco and health, creating a distinct regulatory scheme for cigarettes and smokeless tobacco." *Id.* at 155–56. The FDA, by independently regulating tobacco, had effectively asserted authority in a field that other statutes had already occupied. Under such circumstances, the Supreme Court held that "Congress has directly spoken to the issue here and precluded the FDA's jurisdiction to regulate tobacco products." *Id.* at 133. Here, the MLA does not directly speak to the issue of oil and gas pipelines in national parks; the statute instead expressly applies to all Federal lands *except* national parks. Therefore, unlike the tobacco statutes in *Brown & Williamson* that occupied the FDA's regulatory space, the MLA is carefully drawn to *avoid* NPS's domain. Thus, the MLA and the National Park System simply operate in separate spheres, and the MLA leaves untouched

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whatever preexisting right-of-way authority that Congress delegated for the Park System's management.

In an effort to show that the MLA is all-encompassing and precludes oil and gas pipelines in the National Park System, Petitioners cite the MLA's exclusivity and retroactivity provisions. 30 U.S.C. § 185(q), (t). However, those provisions do not support Petitioners' position because the provisions' scope remains limited to all "Federal lands" other than national parks. Had those provisions utilized a definition of "Federal lands" that included the National Park System, we may be compelled to agree, but that is not the statute we have.

Petitioners also argue that a ruling in the agency's favor would allow NPS and ACP to evade the policy choice that Congress made in the MLA, which subjects oil and gas pipelines to stringent requirements. However, the MLA's requirements, by the statute's plain text, never applied to the National Park System. Thus, there is simply nothing to evade. That is not to say that NPS has unbridled discretion to grant oil and gas rights-of-way the agency still has to comply with the requirements of whatever authorizing statute it properly invokes. And, although the MLA does not preclude NPS from granting such rights-of-way, the statute's exhaustive requirements shed light on the rigor and thoroughness that Congress expects to accompany such weighty decisions, particularly given the National Park System's conservation mission. *See* 54 U.S.C. § 100101(a).

Accordingly, we hold that the MLA neither authorizes nor precludes grants of rights-of-way across "lands in the National Park System." 30 U.S.C. § 185(b).

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3.

Having determined that the MLA leaves intact NPS's right-of-way authority, we now consider the scope of authority conferred by the Blue Ridge Parkway Organic Act and NPS's compliance with its requirements. At issue are two provisions containing substantially similar language, 16 U.S.C. § 460a-3 and § 460a-8. Petitioners argue that neither provision authorizes the right-of-way permit in this case, while NPS and ACP argue that both provisions are independently sufficient sources of authority. To harmonize and give effect to both provisions, we conclude below that § 460a-8 applies only to a specific extension of the Blue Ridge Parkway that is not at issue in this case. Even assuming that either § 460a-3 or § 460a-8 confers general authority on NPS to grant oil and gas rights-of-way through Blue Ridge Parkway property, we conclude that NPS has acted arbitrarily and capriciously by failing to explain why ACP's pipeline is not inconsistent with parkway purposes.

Our analysis begins with the text. Section 460a-3 provides that:

In the administration of the Blue Ridge Parkway, the Secretary of the Interior may issue revocable licenses or permits for rights-of-way over, across, and upon parkway lands, or for the use of parkway lands by the owners or lessees of adjacent lands, for such purposes and under such nondiscriminatory terms, regulations, and conditions as he may determine to be not inconsistent with the use of such lands for parkway purposes.

16 U.S.C. § 460a-3.

Section 460a-8 provides that:

The Secretary of the Interior may issue revocable licenses or permits for rights-of-way over, across, and upon parkway lands, or for the use of parkway lands by the owners or lessees of adjacent lands, or for such purposes and under such terms and conditions as he may determine to be consistent with the use of such lands for parkway purposes.

16 U.S.C. § 460a-8.

To discern the scope of these two virtually identical provisions, we must determine how they interact with one another. NPS and ACP argue that § 460a-8 is broader than § 460a-3 because the former places an "or" in front of "for such purposes and under such terms and conditions as he may determine to be consistent with ... parkway purposes." Thus, NPS and ACP read § 460a-8 as authorizing three types of permits: (1) permits for rights-of-way over, across, and upon parkway lands; (2) permits for the use of parkway lands by the owners or lessees of adjacent lands; and (3) permits for other purposes that the agency determines to be consistent with parkway objectives. Meanwhile, because § 460a-3 lacks the final disjunctive "or," it would only authorize two types of permits, both of which must be consistent with parkway purposes: (1) permits for rights-of-way over, across, and upon parkway lands and (2) permits for the use of parkway lands by the owners or lessees of adjacent lands.

We find NPS and ACP's reading of § 460a-8 unpersuasive. Were we to adopt it, § 460a-8 would completely swallow § 460a-3 and render it a nullity. Indeed, § 460a-8 would be an implied repeal of § 460a-3 because it would remove the consistency requirement that previously constrained NPS's discretion. This construction also flouts a fundamental principle that undergirds every aspect of NPS's management of the National Park System—the agency is forbidden from taking any action that is not consistent with its conservation mission unless Congress has "directly and specifically" authorized the

harmful activity. See 54 U.S.C. § 100101(a), (b)(2). As the Supreme Court has held, courts disfavor implied repeals and amendments of statutes. Nat'l Ass'n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 664 & n.8 (2007). Similarly, we have an obligation to read statutory provisions in context and to avoid rendering superfluous any parts thereof. United States v. Jicarilla Apache Nation, 564 U.S. 162, 185 (2011); TRW Inc. v. Andrews, 534 U.S. 19, 31 (2001). Accordingly, as long as there is a reasonable alternative, we will not read § 460a-8 as impliedly abrogating NPS's conservation mandate under § 460a-3 and 54 U.S.C. § 100101. 15

Petitioners have provided a more than reasonable interpretation of § 460a-8 that also gives effect to § 460a-3. Petitioners correctly point out that § 460a-8 was a later-enacted provision passed within a larger bill authorizing the construction and management of an extension of the Blue Ridge Parkway, which would run from North Carolina into Georgia. *See* Pub. L. No. 90-555, § 3, 82 Stat. 967 (1968). The geographical distinction between § 460a-3 and § 460a-8 completely resolves the seeming redundancy of the two similarly worded provisions. In particular, the statutory provision explicitly relied on in the permit, § 460a-8, applies only to the never-constructed southern extension, not to the original Blue Ridge Parkway itself (for which § 460a-3 governs). In sum, because the proposed pipeline crossing in this case is in Virginia, § 460a-8 does not provide NPS with any authority to issue the requisite right-of-way permit.

¹⁵ We note that even NPS's permit decision indicated that it only had authority under § 460a-8 to grant a right-of-way if it determined that such a grant is consistent with parkway purposes. J.A. 897. Therefore, NPS's litigation position is actually contrary to the agency decision that it purports to defend.

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Ordinarily, that conclusion would end our inquiry because it is a "fundamental rule of administrative law" that "a reviewing court, in dealing with a determination or judgment which an administrative agency alone is authorized to make, must judge the propriety of such action solely by the grounds invoked by the agency." See Sec. & Exch. Comm'n v. Chenery Corp., 332 U.S. 194, 196 (1947). Under Chenery, "[i]f those grounds are inadequate or improper, the court is powerless to affirm the administrative action by substituting what it considers to be a more adequate or proper basis." Id. However, we are faced with an unusual circumstance in which NPS has invoked an inapplicable statutory provision, § 460a-8, but in doing so, has essentially recited the applicable text of another, § 460a-3. As a result, affirming NPS's decision on § 460a-3 grounds would not substitute the Court's judgment for the agency's because the grounds for invoking § 460a-3 and § 460a-8 are the same. Under both § 460a-3 and § 460a-8, NPS's ground for granting a right-of-way permit is the identical determination that such a grant would not be inconsistent with parkway purposes. Accordingly, we conclude that Chenery alone does not compel a reversal and that we may affirm if § 460a-3 provides NPS with the requisite authority and NPS has complied with its requirements.

¹⁶ Compare J.A. 897 ("§ 460a-8 authorizes the Secretary of the Interior to grant revocable licenses or permits for rights-of-way over, across, and upon Parkway lands, under such terms and conditions as he may determine to be consistent with the use of such lands for parkway purposes.") with 16 U.S.C. § 460a-3 ("[T]he Secretary of the Interior may issue revocable licenses or permits for rights-of-way over, across, and upon parkway lands . . . under such nondiscriminatory terms, regulations, and conditions as he may determine to be not inconsistent with the use of such lands for parkway purposes.").

As to NPS's authority under § 460a-3, the parties dispute two possible limitations. First, Petitioners argue that § 460a-3 authorizes the grant of rights-of-way only to "owners or lessees of adjacent lands." See 16 U.S.C. § 460a-3. NPS and ACP counter that the "owners or lessees" clause only modifies "for the use of parkway lands." In other words, they believe that NPS may authorize only the Parkway's neighbors to "use" the Parkway, but NPS can grant rights-of-way to both neighbors and non-neighbors. Second, the parties dispute whether § 460a-3 allows NPS to grant rights-of-way for oil and gas pipelines notwithstanding the neighbors clause. Petitioners argue that oil and gas pipelines are categorically inconsistent with parkway purposes and that NPS therefore has no authority to grant a right-of-way for any oil or gas pipeline, not just the ACP. The MLA (30 U.S.C. § 185) and 54 U.S.C. § 100902 may also inform our analysis of § 460a-3, because both statutes authorize rights-of-way for gas and utility-type purposes subject to detailed requirements rather than open-ended agency discretion. However, we need and thus do not decide either of these broader interpretative questions because, even assuming that § 460a-3's general right-of-way authority encompasses oil and gas pipelines, Petitioners nonetheless prevail because the agency has not fulfilled the requirements needed to exercise any such authority.

To the extent § 460a-3 confers such authority, before NPS can properly issue a right-of-way permit, it must make a threshold determination that granting the right-of-way is "not inconsistent with the use of such lands for parkway purposes" and the overall National Park System to which it belongs. Critically, Congress has defined the National Park System's "purpose" as "conserv[ing] the scenery, natural and historic objects, and

wild life in the System units and [] provid[ing] for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." 54 U.S.C. § 100101(a); United States v. Stephenson, 29 F.3d 162, 165 (4th Cir. 1994) (construing predecessor to 54 U.S.C. § 100101). Thus, unlike other Federal lands, such as the national forests, the National Park System's sole mission is conservation. Mich. United Conservation Clubs v. Lujan, 949 F.2d 202, 207 (6th Cir. 1991) ("[U]nlike national forests, Congress did not regard the National Park System to be compatible with consumptive uses."). To that end, Congress has mandated that the management of the National Park System, including the authorization of activities therein, be consistent with those conservation values and purposes, absent specific and direct legislation to the contrary. 54 U.S.C. § 100101(b). That conservation mandate extends to the management of the Blue Ridge Parkway, a unit of the National Park System. 16 U.S.C. § 460a-2. Thus, absent a specific exemption from this mandate, NPS must determine that its right-of-way permit is not in "derogation" of the National Park System's conservation mission. 54 U.S.C. § 100101(b).

The Blue Ridge Parkway also has its own conservation and preservation purpose, according to NPS's General Management Plan for the Parkway. Under the Plan, the Parkway's specific purposes are to "connect . . . national parks by way of a 'national rural parkway' a destination and recreational road that passes through a variety of scenic ridge, mountainside, and pastoral farm landscapes"; "conserve the scenery and preserve the natural and cultural resources of the parkway's designed and natural areas"; "provide

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for public enjoyment and understanding of the natural resources and cultural heritage of the central and southern Appalachian Mountains"; and "provide opportunities for high-quality scenic and recreational experiences along the parkway and in the corridor through which it passes." The Blue Ridge Parkway Organic Act then forbids NPS from authorizing any right-of-way that is not consistent with those parkway purposes. *See* 16 U.S.C. §§ 460a-3, 460a-8. Thus, the right-of-way permit in this case would violate statutory requirements if not accompanied by a valid agency determination that the pipeline is not inconsistent with the Parkway's scenic value and the public's enjoyment thereof.

We review NPS's factbound determination that the pipeline right-of-way is consistent with the purposes of the Parkway and the Park System under the deferential "arbitrary and capricious" standard set forth in *State Farm*. *See* 463 U.S. at 43; *see also* 5 U.S.C. § 706. Under *State Farm*, "the agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made." 463 U.S. at 43 (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). Generally, an agency decision is arbitrary and capricious if "the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the

¹⁷ National Park Service, Blue Ridge Management Plan, 9 (Jan. 2013), https://parkplanning.nps.gov/document.cfm?parkID=355&projectID=10419&documentI D=51305 (saved as ECF opinion attachment 4).

agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Id.*

Here, the agency decision is not accompanied by any explanation, let alone a satisfactory one. Instead, the permit merely recites that "NPS has determined that the proposed use or occupancy of the NPS-administered lands or waters described herein for the operation and maintenance of the Project, is consistent with the use of these lands for Parkway purposes" and provides no further elaboration. J.A. 897.

We find this lack of explanation particularly troubling given the evidence in the record indicating that the presence of the pipeline is inconsistent with and in derogation of the purposes of the Parkway and the Park System. Indeed, a visual impact study that NPS oversaw specifically concluded that the effect of the pipeline on views from the Parkway "would likely be inconsistent with NPS management objectives." J.A. 1020. The permit neither mentions this detrimental effect nor the efficacy of any mitigating steps. *See, e.g., Fred Meyer Stores, Inc. v. Nat'l Labor Relations Bd.*, 865 F.3d 630, 638 (D.C. Cir. 2017) (finding agency action was arbitrary and capricious when "it evidences a complete failure to reasonably reflect upon the information contained in the record and grapple with contrary evidence disregarding entirely the need for reasoned decisionmaking").

Nor does the NPS decision address whether the drilling required to install the pipeline will remain consistent with park purposes should the proposed drilling method fail. In the event of failure, ACP must resort to its contingency plan of using the "direct pipe" method, which is expected to intensify the disruptive effects of the pipeline and

impact additional observation areas. J.A. 560. Similarly, the permit, at numerous points, appears to acknowledge the possibility of spills and fires, but it does not consider whether inviting such risks into the National Park System is consistent with NPS's conservation mission. See, e.g., J.A. 903 (requiring ACP to provide contact information in case of spills and fires). Because NPS's permit decision contains no explanation of likely inconsistencies that NPS's own review has uncovered, we must conclude that the agency has failed to draw a "rational connection between the facts found and the choice made" and has ignored important aspects of the problem. See State Farm, 463 U.S. at 43; Ohio River Valley Envtl. Coal., Inc. v. Kempthorne, 473 F.3d 94, 103 (4th Cir. 2006) (holding that agency acted arbitrarily by weakening environmental protection standards without explaining consistency with statutory objectives). To do less would be to accept an agency's blanket conclusions at face-value and to abdicate this Court's role to ensure that the agency has considered "important aspect[s] of the problem" and rendered a decision that is at least rational. See State Farm, 463 U.S. at 43; Dow AgroSciences LLC v. Nat'l Marine Fisheries Serv., 707 F.3d 462, 471 72 (4th Cir. 2013).

Compounding these omissions are elemental errors in what NPS does say. In addition to invoking an inapplicable statutory provision (16 U.S.C. § 460a-8) as the source of its authority, the NPS decision also cites an inapplicable set of regulations. In the permit, NPS seems to take as a given that regulations codified at 36 C.F.R. Part 14 govern the issuance of the ACP permit and its conditions. J.A. 897. However, those regulations were promulgated under what is now 54 U.S.C. § 100902, a statute that expressly governs rights-of-way for electric utilities, telecommunications lines, and water

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conduits not gas pipelines. While NPS certainly has discretion under 16 U.S.C. § 460a-3 to adopt those same requirements for other uses, there is nothing to indicate that NPS recognized the actual scope of 36 C.F.R. Part 14 or considered the regulations' appropriate application beyond the express purposes of § 100902. Given the collective weight of these errors and omissions, we are left with the firm conviction that NPS has not discharged its statutory obligation to apply its considered expertise to the exercise of its delegated authority.

Accordingly, we hold that NPS's permit decision is arbitrary and capricious. NPS began by invoking inapplicable laws. Even if this Court overlooks that error and assumes that NPS correctly interpreted the Organic Act to authorize rights-of-way for gas pipelines, NPS has not fulfilled its statutory mandate of ensuring consistency with values and purposes of the Blue Ridge Parkway unit and the overall National Park System.

* * *

In sum, we hold that Petitioners have standing to bring this challenge, that this Court owes no deference to the statutory interpretation contained in NPS's permit decision, that the MLA does not strip NPS of authority to grant rights-of-way for gas pipelines, and that NPS's decision to grant ACP a right-of-way was arbitrary and capricious for failing to explain the pipeline's consistency with the purposes of the Blue Ridge Parkway and the National Park System.

IV.

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Having concluded that both FWS and NPS erred in issuing their respective authorizations, we turn to the final question of remedy. Respondents argue that this Court lacks authority to vacate the agency actions under the Natural Gas Act. However, Respondents' position is contrary to the plain text of the Natural Gas Act. The judicial review provision at issue provides,

If the Court finds that such order or action is inconsistent with the Federal law governing such permit and would prevent the construction, expansion, or operation of the facility subject to section 717b of this title or section 717f of this title, the Court shall remand the proceeding to the agency to take appropriate action consistent with the order of the Court.

15 U.S.C. § 717r(d)(3).

On its face, § 717r(d)(3) only applies to an agency action that "would prevent the construction" of the natural gas facility. See Islander E. Pipeline Co., LLC v. McCarthy, 525 F.3d 141, 150 (2d Cir. 2008). Here, the agency decisions do the opposite by enabling pipeline construction, and the provision is therefore inapplicable. As Petitioners correctly argue, § 717r(d) allows entities seeking approval of a pipeline to obtain more efficient resolution when an agency denies their application. See Dominion Transmission, 723 F.3d at 241 ("Congress provided for expedited judicial review of federal or state agency action or inaction that deprives a company building a FERC-certified natural gas facility of an authorization it requires to proceed with construction.") (citing 15 U.S.C. § 717r(d)). Accordingly, in this case, the Natural Gas Act's judicial review provision does not modify the APA's default rule, which empowers this Court to "hold unlawful and set aside agency action." See 5 U.S.C. § 706(2)(A).

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Because FWS and NPS have both granted authorizations in contravention of their respective statutory requirements, we conclude that the correct remedy is to vacate the ITS and the right-of-way permit, respectively.

V.

For the reasons in Parts II and IV, we previously vacated the ITS pending the issuance of this opinion. *Sierra Club*, 722 F. App'x at 322.

For the reasons in Parts III and IV, we now VACATE the right-of-way permit that NPS issued to ACP.

IT IS SO ORDERED.

To: Todd D. Willens[todd_willens@ios.doi.gov]; Aurelia Skipwith[aurelia_skipwith@ios.doi.gov]

Cc: Jim Cason[James Cason@ios.doi.gov]

From: Marc Himmelstein

Sent: 2018-08-07T09:55:35-04:00

Importance: Normal

Subject: [EXTERNAL] Atlantic Coast Pipeline **Received:** 2018-08-07T09:55:59-04:00

Yesterday the Fourth Circuit vacated the NPS incidental take permit for our \$5B project

We are concerned that FERC might issue a stop on the project

We believe that the errors can be corrected easily and would urge you all to reach out to Terry

Turpin, Director of Office of Erergy Projects, 202-502-8558

We are having outside counsel prepare a document that addresses all the deficiencies the court raised If you would have time to meet tomorrow, Dominion folks can be in town to meet with whomever Thanks for your help

Sent from my iPhone

To: 'Skipwith, Aurelia'[aurelia_skipwith@ios.doi.gov]

From: Melinda Tomaino

Sent: 2018-08-08T13:57:56-04:00

Importance: Normal

Subject: RE: [EXTERNAL] RE: FWS Presentation at AGC's Environmental Conf (Commercial

Construction)

Received: 2018-08-08T13:58:06-04:00

Good afternoon, Aurelia.

I wanted to circle back with you about the upcoming conference. We are so pleased that you are personally willing to participate. Do you have a read on progress towards getting the official go-ahead/permission to speak on September 13? Is there anything else you need from me?

Best, Melinda

Melinda L. Tomaino, LEED® AP

AGC of America www.agc.org

Twitter: <u>@AGCEnvironment</u> **Quality People. Quality Projects.**

From: Skipwith, Aurelia <aurelia skipwith@ios.doi.gov>

Sent: Thursday, July 5, 2018 8:49 AM

To: Melinda Tomaino <tomainom@agc.org>

Subject: Re: [EXTERNAL] RE: FWS Presentation at AGC's Environmental Conf (Commercial Construction)

Good morning, Melinda

I hope you had a wonderful 4th!

Thank you for this information and I'll let you know something as soon as I hear.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208 5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Thu, Jul 5, 2018 at 7:59 AM, Melinda Tomaino < tomainom@agc.org> wrote: Good morning, Aurelia.

I was unexpectedly out of the office for a few days, so my apologies for not responding immediately. I've answered your questions below. And also attached the most recent event schedule, so you can see the other government speakers.

Please let me know if you need further information from me. I can also prepare a formal invite letter, if needed.

Hope you had a safe and fun holiday. Warm regards, Melinda

Melinda L. Tomaino, LEED® AP

AGC of America www.agc.org

Twitter: @AGCEnvironment

Quality People. Quality Projects.

From: Skipwith, Aurelia [mailto:aurelia skipwith@ios.doi.gov]

Sent: Thursday, June 28, 2018 9:12 AM **To:** Melinda Tomaino <tomainom@agc.org>

Subject: Re: [EXTERNAL] RE: FWS Presentation at AGC's Environmental Conf (Commercial Construction)

Good morning Melinda,

DOI Ethics has the following questions to complete their review. Could you please answer? Thank you.

- 1. Who is the sponsor or host? ASSOCIATED GENERAL CONTRACTORS OF AMERICA
- 2. Is the sponsor a 501(c)3? NO. AGC IS A 501(c)19
- 3. What is the purpose of the event? EDUCATION
- 4. Is the event a fundraiser? NO. THOUGH WE DO SECURE EVENT SPONSORS
- 5. Who has been invited? (as in nonprofit, other federal executive employees, legislative branch, etc.) ENVIRONMENTAL PROFESSIONALS IN CONSTRUCTION AND RELATED INDUSTRIES; NON-AGC MEMBERS (I.E., PUBLIC, GOVERNMENT OFFICIALS) CAN ALSO REGISTER. IN ADDITION TO THE U.S. FISH AND WILDLIFE SERVICE, REPRESENTATIVES FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY WILL BE IN ATTENDANCE AS SPEAKERS AND THE U.S. ARMY CORPS OF ENGINEERS IS INVITED AS A SPEAKER
- 6. Approximately, how many people are expected to attend? 80-100
- 7. What is the monetary value of the gift of free attendance? (cost conference fee, registration fee, food, refreshments, entertainment, instruction, and materials furnished to all attendees as an integral part of the event) How was this cost determined? REGISTRATION FEE IS \$495 FOR AGC MEMBERS; COST IS FACTORED BY EVENT SPACE RENTAL FEES, CATERING EXPENSES, AUDIO/VISUAL EXPENSES, MATERIALS COSTS SUCH AS SIGNAGE AND PRINTING FEES, SHIPPING, ETC. COSTS ARE DIVIDED BY EXPECTED NUMBER OF ATTENDEES TO SET REGISTRATION FEE. ALTHOUGH SPEAKERS ARE AUTOMATICALLY GIVEN A COMPLIMENTARY

REGISTRATION, THEY DO NOT HAVE TO PARTICIPATE IN ANY OF THE EVENT FUNCTIONS AND CAN CHOOSE TO ATTEND ONLY THEIR EDUCATIONAL SESSION.

Aurelia Skipwith

Deputy Assistant Secretary for Fish and Wildlife and Parks

U.S. Department of Interior 1849 C Street, NW, Room 3148 Washington, DC 20240 (202) 208-5837

NOTE: Every email I send or receive is subject to release under the Freedom of Information Act.

On Fri, Jun 22, 2018 at 10:27 AM, Melinda Tomaino < tomainom@agc.org > wrote: Aurelia Skipwith,

Good morning. I want to thank you for your willingness to speak to the environmental professionals in the construction industry at our upcoming conference. Leah mentioned that you were going to need to go through a process before you could formally accept the invitation to speak. I wanted to give you some time to take those steps before I send you the conference details. Are you able at this time to confirm your participation? If so, then I'd love to be able to add your name to the schedule and gather your biographical information for the attendees.

Thank you for your consideration of this event.

Regards, Melinda Tomaino

Melinda L. Tomaino, LEED® AP

Director, Environmental Services
The Associated General Contractors of America
2300 Wilson Boulevard, Suite 300
Arlington, VA 22201
Direct Phone - (703) 837-5415
Direct Fax - (703) 837-5401
tomainom@agc.org

www.agc.org

Twitter: @AGCEnvironment

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From: Leah Pilconis

Sent: Tuesday, June 05, 2018 10:28 AM

To: 'aurelia skipwith@ios.doi.gov' <aurelia skipwith@ios.doi.gov>

Cc: Melinda Tomaino <<u>tomainom@agc.org</u>>; Leah Pilconis <<u>pilconisl@agc.org</u>> **Subject:** FWS Presentation at AGC's Environmental Conf (Commercial Construction)

Dear Aurelia -

It was a pleasure speaking with you this morning. As discussed, we would like to formally invite you to present at AGC's 2018 Construction Environmental Conference on September 12-13, in Crystal City, Virginia. We have time set aside an hour – from 10:00 to 11:00 AM – on Thursday, September 13 for an FWS update/overview. My colleague, Melinda Tomaino, director of AGC's environmental services, (copied on this email) is administering this conference; please keep an eye out for any follow-up emails from her – tomainom@agc.org / 703.837-5415 – and don't hesitate to reach out if you need more information.

Below is a short bulleted list of issues that are of interest to the commercial construction industry, but please feel free to share additional items that you want to bring to our attention. Some time at the end for questions would be great, too.

Attached please find the schedule of events, subject to change. You are welcome to join us for any part of the conference, as your schedule permits. As I mentioned, and as you can see from our conference Website at http://meetings.agc.org/cec/, a group of AGC in-house environmental managers will meet on September 11 for a day of roundtable discussions on issues that they pick. And following the conference, which I did not mention, our environmental Steering Committee (a smaller group), meets with federal agency staff to discuss regulatory/policy issues that are on the horizon. We have not set that agenda yet; perhaps we will identify a need for our 2 groups to meet to talk face-to-face about some of the topics below.

FWS ISSUES OF INTEREST TO AGC CONTRACTORS

- New DOI <u>memorandum</u> that the Migratory Bird Treaty Act (MBTA) does not prohibit incidental take. Also subsequent DOI guidance to assist agencies within the Department with implementation of the MBTA memo.
- FWS <u>guidance memorandum</u> addressing when an incidental take permit (ITP) may be needed under Section 10(a)(1)(B) of the Endangered Species Act for projects that modify habitat of federally listed species.
- The following FWS planned regulatory actions:

- o Clarify and improve rules governing <u>interagency cooperation</u>(link is external) related to Endangered Species Act Section 7 implementation.
- Review and revise regulations for <u>listing of species and for designation of critical habitat</u>(link is external).
- Update list of <u>migratory birds</u>(link is external).

Thank you again for your interest in <u>AGC's 2018 Construction Environmental Conference</u>. We very much look forward to your participation – and, most especially, to opening up the lines of communication with FWS.

Warm regards,

Leah

Leah F. Pilconis

Senior Counsel, Construction & Environmental Risk Management

The Associated General Contractors of America -- <u>2300 Wilson Blvd.</u>, <u>Suite 300</u>, <u>Arlington</u>, <u>VA 22201</u>

703.837.5332 | pilconisl@agc.org | @AGCEnvironment | linkedin.com/in/LeahPilconis | www.agc.org/environment



To: Aurelia_Skipwith@ios.doi.gov[Aurelia_Skipwith@ios.doi.gov];

todd_willens@ios.doi.gov[todd_willens@ios.doi.gov]

From: Amos Eno

Sent: 2018-08-13T14:25:13-04:00

Importance: Normal

Subject: [EXTERNAL] FW: Common ground and Common Sense ESA

Received: 2018-08-13T14:25:34-04:00

ESA paper - Henson, White, Thompson BioScience September 2018.pdf

Aurelia:

FYI attached. Hope to see you next trip to DC week of 10 Sept

Amos S. Eno

Executive Director

Land Conservation Assistance Network

74 Lunt Road Suite 300 Falmouth, ME 04105 207-536-0831 207-232-0134 (c)



From: steve@stevethompsonllc.com [mailto:steve@stevethompsonllc.com]

Sent: Wednesday, August 08, 2018 4:21 PM

To: Amos Eno <aeno@landcan.org>

Subject: Common ground and Common Sense ESA

Amos,

Paper we discussed on the phone. Should be officially published in BioScience in September.

Steve

 $\underline{steve@stevethompsonllc.com}$

(b) (6)

Improving Implementation of the Endangered Species Act: Finding Common Ground Through Common Sense

PAUL HENSON, ROLLIE WHITE AND STEVEN P. THOMPSON

The Endangered Species Act of 1973 continues to be the subject of intense political acrimony. Opponents believe the law is a failure and call for significant changes, whereas proponents resist changes and argue for more funding to implement the statute. We suggest the law has been successful in meeting its core mission of preventing human-caused extinctions, but there are significant challenges with how the law is applied that limit its success. We recommend improvements in implementation that could lessen political controversy while making the act a more effective tool for conservation.

Keywords: Endangered Species Act, critical habitat, listing, environmental regulation

The Endangered Species Act of 1973 (ESA) has been the subject of heated debate. The act is considered by many to be the signature environmental law of the United States (Bean 2009), but this status also amplifies the acrimony over the act's ongoing implementation. These arguments for and against the ESA often align along familiar perspectives (Male and Bean 2005, Evans et al. 2016). Critics call it a failure because it has not led to the recovery (i.e., formal delisting) of very many listed species. Proponents claim the opposite, noting that the ESA has helped prevent the extinction of the vast majority of listed species.

Our view is squarely in the middle and is based on many decades of implementing the ESA as field biologists and wild-life managers in both the private and public sectors throughout the American West. The act continues to enable some of the most important and positive conservation outcomes in the United States, but its effectiveness could be significantly improved to accomplish even more conservation with less unintended consequences.

Reflecting on this experience, the purpose of the present article is threefold: to affirm the obvious success of the ESA in meeting its core mission of preventing human-caused extinctions, to acknowledge that the ESA sometimes has unintended negative consequences and that current and future implementation of the act has significant challenges

and unrealized potential, and to provide a field perspective with some practical recommendations for future improvement in implementation. It is our hope that this discussion finds common ground and leads to improved implementation of the act for the wide variety of stakeholders in both rural and urban America.

Success of the ESA

The ESA is a resounding conservation success story. It stops extinctions and recovers species (Schwartz 2008, Donlan and Rothacker 2015), and it provides valuable oversight of relevant federal activities (Malcom and Li 2015). The act also educates the public on the vulnerability of species and ecosystems as it puts many species on a steady path to recovery (Luther et al. 2016). Although the pace of recovering and delisting species was slow for the first few decades of the act's implementation, it has picked up significantly in recent years (figure 1; Neel et al. 2012). But for the act, it is doubtful that we would be able to observe in the wild some of the magnificent wildlife species that we now take for granted, such as peregrine falcons (Falco peregrinus), brown pelicans (Pelecanus occidentalis), southern sea otters (Enhydra lutris nereis), humpback whales (Megaptera novaeangliae), American alligators (Alligator mississippiensis) and many others. This success has been well documented by other authors

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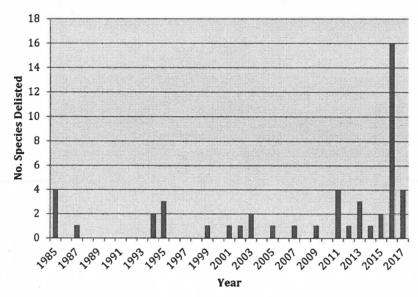


Figure 1. The number of species delisted per year under the ESA because of recovery. Source: USFWS 2018.

and will not be further detailed here (e.g., Evans et al. 2016, Luther et al. 2016). Instead, we focus on challenges with the ESA and how its implementation might be improved.

Shortcomings of ESA implementation

The above success notwithstanding, there are significant areas in which the ESA falls short of its potential and in which its effectiveness could be improved (Donlan and Rothacker 2015, Evans et al. 2016). This is a difficult topic for some conservationists to discuss. They are reluctant to admit that the ESA can have flaws or room for improvement, perhaps concerned that doing so will unravel political support for the act or enable weakening of various provisions of the law. However, our observations and some recent research reach different conclusions about challenges with the ESA (Baur et al. 2009, Benson 2012), and it is important to face these concerns squarely to make the act work better.

Perhaps the most significant overall concern is that application of the ESA does not always result in net positive conservation outcomes (Langpap and Wu 2004, Sorice and Abel 2015). How could this be? The act's clear intent is to conserve biodiversity, not harm it. Unfortunately, the act can create perverse disincentives for the conservation of many species and for important segments of the American public (Langpap et al. 2018). It sometimes alienates or antagonizes key constituencies who would otherwise support its goals and intent, such as many family farmers and ranchers (Mir and Dick 2012, Knapp et al. 2015). And its implementation often consumes scarce conservation resources because of bureaucratic and administrative requirements, especially when ambiguities in the law invite litigation (Rylander 2012). Proponents of the ESA need to recognize and address

these problems if the act is to be supported more broadly in both rural and urban America (Fankhauser 2015).

Many of these shortcomings are a consequence of the highly variable legal, ecological, and social environment within which the act is applied, as well as a vastly different political and economic environment today from those when the act was first passed almost 45 years ago (Evans et al. 2016). Some of the specific areas in which implementation of the act faces challenges and could be improved are the process for listing species and the need to encourage proactive conservation prior to a final listing decision, distinguishing between conservation opportunities on public lands versus private lands, distinguishing between conservation challenges that require regulatory action versus those that need proactive or voluntary intervention, reducing the negative conserva-

tion consequences of critical habitat designation, reconciling single species conservation with ecosystem conservation, and the process for delisting species, and the need to transition recovering species from the ESA to other forms of management.

The act is difficult to administer in a consistent manner when managing this wide variety of conservation challenges. The question is whether the ESA can be strategically tailored to these highly variable circumstances or whether America's most powerful environmental statute mostly a blunt instrument.

The listing process: Encouraging conservation prior to a final listing decision

It is often said that if you have reached the point that you need to list a species under the ESA, you are probably too late. This statement is true in two simple ways. First, the more a species is allowed to decline before taking affirmative action, the more expensive and technically challenging it will be to prevent extinction and reach recovery. And second, once a species is formally listed, the opportunities for collaboration with many state and local governments and private landowners are usually reduced, and the acrimony surrounding actions to conserve the species is usually heightened (Benson 2012).

Quite often, the most opportune time for species conservation to occur is that moment when a species is seriously being considered for a listing but well before a final listing decision has been made. Once a listing decision is imminent, people start paying attention, information is collected, and stakeholders are jolted into action. Unfortunately, this moment can be short-lived and fleeting, even for species for which declines have long been recognized. There is no

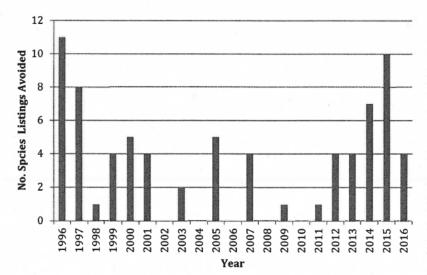


Figure 2. The number of species for which the need for ESA listing has been avoided per year because of preemptive implementation of conservation measures or plan. Source: USFWS 2018.

effective incremental or iterative process under the ESA for initiating conservation prior to a species being formally considered for listing (Bean 2015). The listing process, once formally initiated, is mostly a linear and deadline-driven regulatory process, especially when operating under a court-ordered schedule because of litigation. This process does not accommodate or encourage the development of relationships, partnerships, and trust, all of which are essential ingredients in the creation of voluntary and proactive conservation plans.

Historically, the process also redirects most discretionary agency staff resources to the actual development of the listing finding and away from participating in conservation activities that might benefit the species and forestall the need to list. This dynamic may be changing: A pending listing can be a powerful incentive that brings stakeholders to the table, and once there, the process could allow for time and flexibility to enable different interests to find common ground, as was done for the 2015 greater sage grouse (Centrocercus urophasianus) "not warranted" listing decision (USFWS 2015a). In recent years, interest in prelisting conservation plans seems to be increasing for species being considered for listing (figure 2) or that have been granted candidate status, such as the greater sage grouse, fisher (Pekania pennant; USFWS 2016a), or lesser prairie chicken (Tympanuchus pallidicinctus; BenDor et al. 2017). There can sometimes be local efforts and public notoriety surrounding species that are in decline but not yet federally listed.

Can meaningful and collaborative conservation efforts be started upstream of the Endangered Species Act (Donlan and Rothacker 2015)? We believe so, and we offer the following recommendations to encourage collaborative conservation efforts prior to a final listing decision: Unless a species is faced with imminent extinction and aggressive intervention is immediately necessary, make it standard procedure prior to a listing to develop collaborative conservation strategies with states and private stakeholders (Rissman and Sayre 2012, Raymond and Schneider 2014).

Encourage stakeholders, especially private landowners or permit holders using federal lands, to participate in the design of prelisting conservation programs with an explicit goal of obviating the need to list. The US Fish and Wildlife Service (USFWS) and state agencies can provide staff support for these efforts. This would increase buy-in, reduce acrimony and mistrust, distribute the workload, and lead to better conservation on private lands (Sorice and Abel 2015).

Consistent with the authorities described in the act, actively engage willing states in certain ESA-related

activities through section 6 cooperative agreements, such as preparation of prelisting conservation agreements, recovery outlines, and so on. This will help spread the workload, bring needed expertise from state agencies, and help invest states in final listing decisions. However, a process will need to be enumerated in the agreement to resolve situations in which a state and the USFWS might disagree on decisions or recommendations, in which multiple states are involved, and in which resources to staff these efforts are limited.

For wide-ranging species, encourage and monitor different approaches in different states to assess the pros and cons of various plans and to encourage creativity and adaptive management. Recent examples of proactive, multistate efforts that obviated the need for a listing include the greater sage grouse (USFWS 2015a), fisher (2016a), and Washington ground squirrel (*Urocitellus washingtoni*; USFWS 2016b).

Public lands versus private lands

Once species are on the Threatened and Endangered list, some of the biggest challenges to achieving positive ESA outcomes are the complex trade-offs between how to manage species that occur on public lands compared with those located on private lands (Langpap et al. 2018). Regulatory authorities, positive and negative incentives, and social mores vary widely on the different land ownership types (James 2002). This difference also plays out at a national political level because public lands compose a disproportionately large portion of the western United States.

The ESA is well suited for reconciling many federal activities with species conservation, especially actions occurring on federal lands. Examples include the conservation of old growth trees on national forests, the management of public waters, and the building of federal highways. The

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vast majority of federal actions that are subjected to ESA oversight proceed, sometimes but not always with adjustment to minimize their impacts to listed species (Malcom and Li 2015). Federal action and regulatory agencies have learned to work more collaboratively and proactively with one another to carry out their missions and efficiently comply with the act. Improvements in the process occur regularly, and in our view it is more efficient than some critics of the act suggest.

Nevertheless, a regulatory approach that may be efficient for conserving species on federal lands may actually lead to negative conservation on private lands (Knapp et al. 2015). Over two-thirds of at-risk species occur on private lands (Evans et al. 2016), and many of these private lands-and the species that occupy them—are interspersed with public lands. Unfortunately, ESA-listed species are often viewed as a fiscal or legal burden by private landowners (Ciuzio et al. 2013, Sorice et al. 2011, 2013), which, in turn, discourages many of these landowners from participating in conservation efforts (James 2002, Baur et al. 2009). Many ranchers and farmers have a strong land stewardship ethic that inclines them to a conservation perspective (Jackson-Smith et al. 2005, Knight 2007, Raymond and Schneider 2014), but concerns posed by environmental regulation usually overwhelm positive conservation values (Olive and Raymond 2010, Miller et al. 2011, Sorice and Abel 2015). Therefore, many landowners oppose maintaining or improving habitat for endangered species on their property to protect their long-term commercial or legal interests and their property rights (Mir and Dick 2012, Rissman and Sayre 2012).

This ESA dynamic works against conservation in many places (Fischer and Bliss 2008, Groce et al. 2012). For example, throughout the American West livestock ranches, family farms, and small woodlots provide important and relatively undeveloped habitat conditions for many species of wildlife (Knight 2007, Talbert et al. 2007, Davies et al. 2011). Many agricultural producers operate close to financial margins and are very sensitive to real or perceived economic uncertainties, including unpredictable regulation (Olive and McCune 2017). Struggling ranches, farms, and working forests are often subdivided or converted to other uses (Liffman et al. 2000, Brunson and Huntsinger 2008). Also, stable rural communities provide the capability and infrastructure to help address important conservation challenges, such as responding to wildfire, managing invasive species, and monitoring local ecological trends (Murphy et al. 2013). Loss or decline of these working landscapes and the economic and social communities that support them can be counterproductive to conservation (Haversustad et al. 2007).

In our view, keeping people working their farms and ranches is a better overall conservation outcome than contributing to conditions that force them off the land. This outcome may seem counterintuitive to some conservationists, especially for those seeking to restrict local economic activities on private natural areas or on nearby public lands. But in

many parts of the West, and especially with working ranches and forests, the relationship between private and public lands management is inextricably linked economically, socially, and ecologically. Implementation of the ESA—and conservation efforts in general—needs to explicitly prioritize avoiding unintended negative economic consequences to local communities that support open, semiwild landscapes if broader and durable conservation goals are to be reached.

Implementation of the ESA has slowly improved to address this need during the last several decades (Evans et al. 2016). For example, in 1982 section 10 of the act was modified to allow for habitat conservation plans (HCPs), and in the 1990s, policies were developed to enable safe harbor agreements (SHAs) and candidate conservation agreements with assurances (CCAAs; Baur et al. 2009). Langpap and Kerkvliet (2012) found that HCPs, on average, are having a positive effect on species recovery, and results from SHAs are positive but could be improved and expanded (Bean 2017). Most recently, development of CCAAs on private lands figured prominently in the decision to not list the greater sage grouse as Threatened or Endangered in eleven states in 2015 (USFWS 2015a). Likewise, the USFWS did not list the fisher in Washington, Oregon, and California partly because of proactive conservation efforts associated with CCAAs with states and private timber companies (USFWS 2016a). Although these decisions remain controversial for environmentalists who would have preferred the species to be listed (Kass 2015), these decisions clearly demonstrate the potential for the act to be applied proactively prior to a listing decision and with positive conservation outcomes that may outweigh the net conservation benefits of listing these species.

Increased use of these agreements is a significant positive development in ESA implementation, but the process for preparing and completing them is lengthy, costly, and labor intensive and needs to be further streamlined and simplified (Donlan and Rothacker 2015, Bean 2017). These tools are also viewed with suspicion by many private landowners and environmental groups, although for different reasons. Private landowners sometimes see them as a type of extortion: They must enroll in this plan or else be regulated. They are also concerned about the potential for revealing proprietary information regarding their property or business. In contrast, environmentalists often view these agreements as if the landowners are "getting off easy" by avoiding regulation. Environmentalists often oppose these agreements publically and sometimes litigate, which makes private landowners reluctant to participate, which, in turn, perpetuates a cycle of conservation avoidance on private lands.

There has also been increased use of sections 4(d) and 10(j) of the act to reduce unnecessary regulation, soften opposition to listed species' conservation, increase management flexibility, and encourage collaboration among a wider segment of the public. Section 10(j) allows the USFWS to establish experimental populations with increased flexibility on the management of those populations, thereby helping overcome local resistance to reintroductions. Section 4(d)

allows the USFWS to establish certain rules in a listing determination that may relax take restrictions and reduce conflict with certain segments of the public, such as farmers or ranchers, as long as the actions the rules permit are compatible with the species' conservation. Currently, approximately 25% of species listed as Threatened have an associated 4(d) rule exempting certain activities from the take prohibition, and as of this writing the USFWS is considering a proposed regulation change to remove the blanket take prohibition on Threatened species (It would remain in effect for endangered species.).

During the last several years in Oregon, the USFWS has used 4(d) rules and 10(j) designations to advance the conservation of bull trout (Salvelinus confluentus)(Dunham et al. 2016), streaked horned lark (Eremophila alpestris strigata), Columbian white-tailed deer (Odocoileus virginianus leucurus), and Oregon silverspot butterfly (Speyeria zerene hippolyta), often with the enthusiastic support of local land managers. Similar provisions have been applied to many listed species elsewhere in the United States, such as the southern sea otter (Enhydra lutris nereis), California condor (Gymnogyps californianus), black-footed ferret (Mustela nigripes), and California tiger salamander (Ambystoma californiense). Although some in the environmental community oppose these efforts (Sanerib et al. 2016), it is clear these approaches have had a significant net positive impact on conservation of these species and on public perceptions of the act, especially with private landowners (Sand County Foundation 2015, Dunham et al. 2016). These tools enable reintroductions of new populations, and they reduce conflicts that might otherwise lead to habitat loss. More detailed information on how these ESA tools improve the status of these species can be readily accessed at www.fws. gov/endangered.

Regulatory versus voluntary conservation actions (reactive versus proactive)

As was discussed above, there is a tension between the carrot and the stick with the ESA. The act can be effective at modifying harmful federal activities but falls short at encouraging proactive, restorative actions on private lands (Ryan et al. 2013). Worse, the ESA sometimes unintentionally encourages people to passively avoid positive engagement (Brook et al. 2003) or to take negative, preemptive actions that discourages species occurring on their property because of fear of regulation or adverse economic impacts (Langpap and Wu 2004, Langpap 2006, Groce et al. 2012).

Much of the early successes of the act were because of its ability to modify and improve federal actions that were directly harming highly vulnerable species. Section 9 of the ESA prohibits unpermitted take of a species, and section 7 requires federal action agencies to consult with the regulatory agencies when their actions may affect list species; both of these regulatory conventions have helped improve the status of many species (Malcom and Li 2015). However,

rather than regulatory prohibitions, many of the most serious conservation challenges today necessitate proactive, interventionist action: restoring natural ecological processes such as fire and flood cycles to large landscapes (Ryan et al. 2013), reintroducing extirpated species and assisting colonization in rapidly changing environments (Seddon et al. 2014, Dunham et al. 2016), and aggressively managing undesirable invasive species (Simberloff et al. 2013), to name a few. These and many other interventions also require acceptance of potential short-term impacts and risk as we manage lands for long-term resiliency in the face of an uncertain future (Gunderson 2013, Henson et al. 2013). Unfortunately, many land managers let important recovery opportunities slip by because of concern of self-inflicted regulatory encumbrance: Why let a listed species thrive and recover on their property if it might bring them risk of economic harm (Langpap 2006)? We have had dozens of conversations with private landowners and public land managers who acknowledge resisting the implementation of positive conservation measures on their lands. They fear that by taking these actions they will self-impose uncontrollable ESA burdens on their future land management with associated economic and legal costs (Henderson et al. 2014), a fear that SHAs were supposed to alleviate, but they have not been fully successful (Bean 2017).

A second concern is that the process of implementing restoration or beneficial actions is often heavily regulated by the ESA, and the costs and headaches of the process discourage action and risk taking. Even small scale conservation and restoration actions that have short-term impacts (e.g., prescribed fire and forest fuels management, in-stream restoration work, invasive species removal) are often regulated as adverse actions under the ESA, adding bureaucratic process costs and introducing an additional layer of oversight that sometimes discourages project implementation or consumes limited project resources (Baur et al. 2009). From a permitting perspective, it is often as difficult to implement a simple restoration action as it is to implement a habitat-altering commercial development. In the meantime, invasive species continue to spread into Endangered species' habitat, the risk of unnatural catastrophic wildfire increases, and unoccupied historic habitat remains unoccupied because of opposition to reintroductions of native species. Unfortunately, for many land managers, these outcomes are preferable to the economic or legal uncertainty associated with helping species recover. Implementation of the ESA needs to be improved and streamlined to change this dynamic.

The following recommendations to land managers and regulators will reduce the conflicts that occur when trying to conserve species on private lands, and they should encourage proactive conservation actions on all landownerships:

Use the flexibility of section 4(d) of the ESA when listing or reclassifying a species. For species not facing imminent extinction risk or severe population constraints, consider the Threatened listing classification with limited or no take

prohibitions. This will lessen the fear of economic and legal liability of having listed species on one's private lands.

Expand the effort to streamline and simplify the regulatory oversight of permitting management and restoration actions with nonfederal parties. Make section 10 documents (HCPs, SHAs, and CCAAs) less complicated legal instruments that do not intimidate private landowners, especially landowners that do not have easy access to legal advice (Male and Donlan 2015, Bean 2017).

To expedite implementation of positive conservation actions, encourage use of the discretion afforded under recent section 7 guidance meant to streamline approval of restoration and recovery projects (USFWS 2016c). Use programmatic section 7 approaches wherever feasible, and continue to use more collaborative and streamlined section 7 processes with federal action agencies (e.g., NOAA 2012, USFWS 2015b).

Critical habitat

The designation of critical habitat provides the clearest example of the difference in positive conservation outcomes when applying the ESA on public versus private lands and when evaluating trade-offs between regulatory and voluntary actions. All listed species are required to have critical habitat designated, which is defined as the specific geographic areas that contain features essential to the conservation of an Endangered or Threatened species and that may require special management and protection. Designating critical habitat is often more controversial than the actual listing of a species as Threatened or Endangered (Groce et al. 2012). Although it is a fundamental tenet of conservation biology that all species need habitat within which to existand it was reasonable and prescient for Congress to include a provision for habitat conservation in the ESA-designating critical habitat as currently practiced is often not an effective mechanism to provide or encourage these habitat-related conservation measures on private lands. Therefore, it is important to manage the critical habitat designation process to maximize positive conservation outcomes and minimize unintended negative consequences.

The positive and negative impacts of a critical habitat designation are highly variable and usually depend on very specific and unique circumstances. One cannot generalize across taxa and geography. Critical habitat may have some conservation benefit in one set of circumstances, such as with the northern spotted owl (*Strix occidentalis caurina*) on high-quality federal lands, but its designation is often counterproductive in other circumstances, such as with listed species on private lands. Although it is difficult to assess quantitatively, one needs to predict and weigh the relative positive and negative conservation consequences of critical habitat designations on a case-by-case basis. This is a challenging exercise (Kalen 2014), although there may be some general rules or questions that could be applied to evaluate this trade-off.

Critical habitat designation has always been controversial, but for several reasons, the acrimony is greatest when private lands are designated. First, drawing a clear legal demarcation on privately owned lands is perceived by many as a federal taking of private land, and it has a profound psychological (if not economic) impact on landowners and local communities (Turner and McGrath 2013). Second, there do not seem to be many obvious regulatory benefits from such designations on private lands, and there are often direct negative conservation impacts. Third, designating critical habitat prior to having important scientific and economic information is controversial, often leading to intense public acrimony and a lack of public confidence in the law or the agencies implementing it (Kalen 2014).

The USFWS has long recognized these issues and commented on the limited conservation value of the existing critical habitat process (Clark 1999, Hagen and Hodges 2006). Although Taylor and colleagues (2005) concluded that critical habitat provides significant positive conservation benefits, other researchers have found little quantitative evidence for net positive conservation outcomes associated with critical habitat designations (Male and Bean 2005, Kerkvliet and Langpap 2007, Gibbs and Currie 2012, Camaclang et al. 2014, Nelson et al. 2014). We have observed private landowners purposefully remove rare and critically endangered plants on their property after their lands were proposed as critical habitat. In other cases, private landowners who were at first willing to restore listed species on their property changed their minds when their lands were proposed for critical habitat. Clearly the designation of critical habitat can have unintended adverse impacts on the conservation of species regardless of the good intentions of the act.

Policy guiding critical habitat designation was recently clarified to address this concern (USFWS and NOAA 2016). This policy update makes clear the USFWS's discretion to weigh the specific positive benefits of a critical habitat designation against the potential negative impacts and then decide whether there is a net conservation benefit to the designation. For example, if a landowner who has entered into an SHA is disinclined to implement positive conservation measures on their private land because he is worried that a pending critical habitat designation on his property might adversely affect his property rights or value, the USFWS can factor this potential into a final decision of whether or not to exclude these lands from a final critical habitat designation.

The listing agencies can reduce these conflicts by considering the following factors as they complete critical habitat designations: Critical habitat designations should clearly be expected to result in net positive conservation outcomes, especially on private lands. Encourage the use of updated policy discretion to determine whether designations are advisable, especially on private lands. The USFWS has used this discretion as long ago as 2003 in the state of Hawaii (USFWS 2003), but we recommend it be applied more widely. Identify "recovery habitat" in recovery plans to provide nonregulatory guidance to private landowners on what geographic areas are important to the recovery of the species. But do not formally designate these areas as

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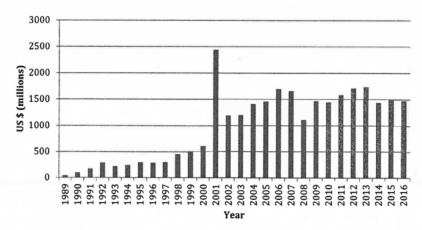


Figure 3. Annual expenditures of the USFWS implementing the ESA. Source: USFWS 2018.

critical habitat if it would negatively affect the likelihood of conservation on those lands. Whenever possible, conduct section 7 consultation with action agencies on designated critical habitat at a programmatic, landscape plan level. If consultation determines that the overarching landscape plan will not adversely modify critical habitat, then subsequent site-specific actions conducted under such a plan will also not adversely modify.

Managing for single species versus ecosystems

The dilemma with critical habitat also raises another challenge to ESA implementation: the focus on single species versus ecosystems and landscapes (Benson 2012). The stated purpose of the ESA is "to provide a means whereby the ecosystems on which endangered species and threatened species depend may be conserved" (ESA, §2(b)). Likewise, the principles of conservation biology encourage us to focus on the conservation of landscapes and large areas of habitat and not just single species (Soule and Wilcox 1980).

As more and more species are listed, the capacity of the USFWS to manage and recover these individual species is increasingly strained (Gerber 2016). Federal ESA budgets remain flat even as more species are listed (figure 3). There are currently about 1600 listed species in the United States, with hundreds more petitioned for listing. Once a species is listed, the USFWS usually must dedicate individual staff exclusively to managing the legal and technical processes associated with complying with the ESA requirements for those species (e.g., critical habitat designation, recovery plan development, section 7 consultation, HCP development, lawsuits). USFWS field operations simply do not have the resources to implement all of the necessary administrative or conservation actions to recover these species. In addition, biologists are often required to focus first on those actions that are legally required by statute or court order (e.g., designate critical habitat) rather than actions that might have greater net conservation value (e.g., curtail an invasive species or work collaboratively with local landowners).

In addition to the exponentially increasing single-species workload, a single-species focus often creates obstacles to implementation of broader ecosystem restoration strategies on large landscapes (Hobbs et al. 2011, Casazza et al. 2016). Conflicts sometimes occur when ecosystem restoration goals do not fully align with the more narrow or short-term conservation needs of individual species (Lampert et al. 2014). For example, even in situations in which there is a general scientific consensus that some degree of active intervention is necessary to restore fire-prone, ecologically departed forests in the West to a more natural and resilient state (Prather et al. 2008, Haugo et al. 2015),

there is still reluctance to take action if such actions might harm listed species in the short term. Although avoiding action may minimize short-term impacts to these species, it often leads to a deferral of needed restoration actions. Ironically, this deferral may put those same listed species at greater risk in the long term (Prather et al. 2008). These conflicts play out for a variety of listed species across ecosystem types, including forests, marshes, deserts, and riparian systems (Lampert et al. 2014).

To reconcile this conflict for northern spotted owls, the USFWS developed an overarching vision in the owl recovery plan (USFWS 2011) that can best be summarized as If it's good for the ecosystem, it's good for the owl. The plan explicitly encourages active management for maintenance or restoration of forest ecological processes (e.g., uncharacteristic wildfire, managing invasive species) even if there are short-term impacts to spotted owls. Of course, this vision depends on a robust scientific understanding of the ecological processes and the relative risks and rewards of taking action (Hobbs et al. 2011, Henson et al. 2013). But it was appropriate to make these recommendations explicit in the recovery plan to overcome a tendency for risk-averse land managers to forego taking actions that may be controversial, even though they are scientifically and ecologically justified.

We recognize that we cannot abandon single-species management in landscapes in which natural processes have been significantly altered. But an approach that focuses on restoring and conserving the natural processes of ecosystems (e.g., Ricklefs et al. 1984) is likely to provide the highest probability of net conservation success, rather than attempting to manage and regulate all actions that affect single species and their associated critical habitats. Such conflicts are likely to increase in frequency and scale as landscape-level conservation challenges associated with climate change, invasive species, and human population growth overwhelm our remaining capacity to manage single species recovery.

Hammer



- Fear of reduced regulatory protections and influence
- Potential loss of ancillary protections/benefits to associated species/habitat

Uncertainty



- · Future management prescriptions not guaranteed
- Scientific predictions re. future population trends or environmental conditions
- · Differing levels of risk tolerance

Money



- · Loss of notoriety for fundraising
- · Reductions in government funding for management
- Less support for academic research

Figure 4. A summary of institutional challenges to delisting of species under the ESA, divided into three categories: hammer, uncertainty, and money.

Delisting recovered species

The final area of ESA implementation that bears review is the process for determining recovery and formally removing species from the ESA list of Threatened or Endangered species. The number of species delisted is not the only measure of the ESA's success (Langpap et al. 2018); this tally is relatively short compared with the number of species currently listed and those awaiting consideration for listing. As was mentioned in the introduction to the present article, this metric misses the broader goals of the ESA, which is to prevent extinctions, conserve the species and the ecosystems on which they depend, and to bring these species to the point at which the protections provided by the act are no longer necessary. The pace of recovering and delisting species has increased significantly during the last decade (figure 1), but it is still relatively slow and remains a legitimate concern.

Although many authors have called for increased funding for ESA implementation as more species are listed, recent federal funding for listed species has remained flat or declined (figure 3; Gerber 2016). In other words, the total funding pie for the ESA has not increased in size recently, and that pie is being divided up into smaller and smaller pieces as more species are listed. Given political and economic trends, it is simply not reasonable to expect federal funding levels to increase in any significant way in the near future (Rylander 2012). Therefore, we need to find more efficient ways to conserve species before they make it on the Endangered species list, and promptly remove from the list those species that no longer require the protections of the act even though they may still require direct management through other mechanisms.

To optimize conservation, it is imperative to target limited ESA funds to species with the greatest need or the highest likelihood of success (Gerber 2016) or to situations in which conservation of umbrella species can provide benefits to associated species in a larger landscape. The act is clearly improving the status of hundreds of listed species. Why, then, is it difficult to delist species that have reached recovery targets or whose threats have been significantly reduced, and to reallocate these resources to species in greater need?

The challenges to delisting can usually be allocated to one or more of the following three factors: hammer, uncertainty, and money (figure 4). It is possible that the delisting of a species, even if the species is doing relatively well and the main threats have been ameliorated, will unravel the regulatory protections that are helping it recover (or protecting other species within the ecosystem). In

other words, the hammer will go away. Therefore, a delisting is sometimes resisted because of concern that the regulatory conditions that helped recover the species will dissipate, and these conditions are necessary to maintain the species' recovered status or provide other conservation benefits for associated species.

Similarly, uncertainty in either the future management prescriptions or in the science underlying the predictions for the species' status can discourage delisting (e.g., Doremus and Pagel 2001). Unfortunately, absolute certainty is usually not achievable in either science or policy. Various what-if scenarios are cited as reasons to not delist, even though the probability of such scenarios occurring might be relatively low if not completely discountable. This discussion of uncertainty usually bogs down on debates of ideal population size, threat management, and disagreements on risk tolerance (Wolf et al. 2015).

A listing under the ESA historically brought notoriety and public recognition that helped direct limited money and resources to the species' conservation. Bringing resources and attention to a declining species is a very important and positive function of the ESA. But what happens when the conservation crisis has abated or when there are species and issues for which the need is greater? Whether one is an academic researcher, an environmental organization that is fundraising, or a government office implementing species recovery, it can be hard to voluntarily let go of these resources by supporting a delisting. As was discussed earlier, it is clear that ESA resources are not always distributed efficiently, and it is unlikely that increased ESA resources will be appropriated by Congress in the near future (Gerber 2016). As a result, there needs to be more discretion at the

field and regional levels of the federal and state agencies to efficiently prioritize scarce ESA resources and determine where limited ESA funds are applied (Kerkvliet and Langpap 2007).

One way to proactively address this hammer-uncertainty-money phenomenon, use resources more efficiently, and advance the fundamental intent of the ESA is to refine and apply the conservation-reliant species management model advanced by Scott and colleagues (2005), Goble and colleagues (2012), and Bocetti and colleagues (2012). In short, this approach views species recovery as a continuum along which varying levels of management intervention are necessary to reduce threats and hold them at acceptable levels. As long as the management is assured and is being applied, and monitoring is in place to confirm its effectiveness, a conservation-reliant species can be considered recovered and removed from the ESA list. If the management is not applied as anticipated, or unforeseen changes occur in a delisted species' status, the species could be added back to the Endangered or Threatened list in a timely manner.

The practical utility of the Scott and colleagues (2005) conservation-reliant approach is becoming more and more apparent. For example, the Oregon chub was recently delisted as recovered, the first fish to reach this status under the ESA. The persistence of this species is completely dependent on a reliable series of federal, state, and private management actions occurring on a mix of natural and man-made water features (Dunham et al. 2016). Historically, the chub evolved and persisted within the highly dynamic floodplain of Oregon's Willamette River, a system that is now intensively regulated by integrated systems of flood control, irrigation, and rural and municipal land management (Hughes 2015). A diverse partnership of federal, state and local managers cobbled together a reliable network of ponds, creeks, and riverine backwaters that crudely mimics the original natural system, and chub were maintained or reintroduced to these areas. As a result, there is now a metapopulation of over 100 chub populations in the Willamette Valley. Assuming this system is adequately maintained by this partnership for the foreseeable future—a reasonable assumption—it was appropriate to delist this species and redeploy limited ESA regulation and resources to other species in greater need.

Some authors urge caution applying the conservation-reliant approach (e.g., Carroll et al. 2014, Rohlf et al. 2014), but there are multiple examples throughout the United States in which the approach has been or should be applied, such as with the black-capped vireo (Vireo atricapilla; Wilsey et al. 2013), Kirtland's warbler (Setophaga kirtlandii; Bocetti et al. 2012), and various listed Hawaiian birds (Reed et al. 2012). In our opinion, there are many other examples of conservation-reliant listed and sensitive species that can probably be conserved more efficiently outside the ESA under a reliable management plan. Some of these species have management strategies that already obviated the need for an ESA listing, such as the fisher (USFWS 2016a), greater sage grouse

(USFWS 2015a), and Washington ground squirrel (USFWS 2016b). Other species, such as the endangered Fender's blue butterfly (*Icaricia icarioides fenderi*), has a growing network of SHAs, HCPs, and other conservation efforts that can continue to provide reliable management into the future to justify a conservation-reliant delisting (Dunham et al. 2016).

Of course, it often takes the threat of an ESA listing (e.g., greater sage grouse)—or the strong desire for a delisting (e.g., Oregon chub)—to get skeptical or cautious stakeholders to clearly commit to the necessary management measures. Can the ESA and associated funding be proactively applied to get these commitments upstream in the process before species have declined to such a degree that their conservation is more expensive or more challenging?

We offer the following recommendations to increase the likelihood that recovered species will be delisted in a timely manner, in turn allowing for the act's resources to be applied to species in greater need:

Apply the conservation-reliant model to recovery and delisting scenarios. Use recovery management agreements as defined by Scott and colleagues (2005) to get commitments from other entities (states, other federal agencies, tribes, private landowners) to manage threats to support delisting. Downlist and delist promptly if a suitable management plan is in place with a reasonable expectation of implementation (Bean 2009).

Affirm that recovery plans are guidelines, and population goals in such plans are not regulatory targets, per se. The main consideration for delisting should be threat management (which can include consideration of low population numbers, population trends, or population distribution). Population data and models often provide useful insight into whether threat management measures are successful or are likely to be successful under different plausible scenarios.

Use or build on existing plans from other efforts (e.g., state plans) that may substitute for a recovery plan as long as they meet all of the substantive requirements of a recovery plan (e.g., site specific management actions, measurable criteria regarding threats, time and cost estimates). These should also provide for public review and comment.

Delisted species should be able to be promptly considered for relisting if promised management measures are not implemented or if the species' status changes because of unforeseen circumstances.

Conclusions

Although the ESA enjoys broad support among the American public, over the years, its implementation has alienated key segments of that public. The act is a flexible statute, and it can be implemented with more common sense to find common ground across the majority of the American public. Applying the above recommendations should increase the likelihood that some listings will become unnecessary, or, for species that are listed, unintended negative outcomes will be minimized by reducing opposition to the act among private landowners. It is our belief that acknowledging the

shortcomings of historic ESA practices and implementing the recommendations above will translate to increased conservation and broader support for the ESA in both rural and urban parts of the country.

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Paul Henson (pchenson@comcast.net) has worked as a research scientist, field biologist, and wildlife manager throughout the West for 35 years and is currently with the USFWS in Portland, Oregon. Rollie White has worked for 30 years as a fisheries scientist and endangered species biologist in Oregon and California and is also with the USFWS in Portland. Steven P. Thompson is a consulting biologist who worked for the USFWS for 31 years before retiring; he is currently serving as chairman of the board to the Peregrine Fund.